From Chief of U.S. Weather Bureau
April 30, 1892

IRRIGATION AND WATER STORAGE

IN

THE ARID REGIONS.

LETTER

FROM

THE SECRETARY OF WAR

TRANSMITTING

A REPORT OF THE CHIEF SIGNAL OFFICER OF THE ARMY IN RESPONSE TO HOUSE RESOLUTION DATED MAY 23, 1890, RELATING TO IRRIGATION AND WATER STORAGE IN THE ARID REGIONS.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1891.

51st CONGRESS, } HOUSE OF REPRESENTATIVES. { Ex. Doc.
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U. S. Signal office

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FROM

THE SECRETARY OF WAR

TRANSMITTING

A report of the Chief Signal Officer of the Army in response to House resolution dated May 23, 1890, relating to irrigation and water storage in the arid regions.

FEBRUARY 28, 1891.—Referred to Select Committee on Irrigation of the Arid Lands in the United States.

WASHINGTON:
GOVERNMENT PRINTING OFFICE
1891.

WAR DEPARTMENT,
Washington City, February 28, 1891.

The Secretary of War has the honor to transmit to the House of Representatives a report from the Chief Signal Officer, with text, tables, and charts, prepared in response to the resolution of the House of Representatives dated May 23, 1890, that—

The Secretary of War be, and is hereby, requested to transmit to the House of Representatives the reports that have been prepared under the direction of the Chief Signal Officer of the Army upon the climate of Arizona and New Mexico and other parts of the arid region, together with such tables particularly of rainfall, temperature, evaporation, and other matters as relate thereto, with such corrections, alterations, and additions as may be deemed advisable by the Chief Signal Officer, who will also express his views as to the value and importance of said tables of temperature, precipitation, evaporation, etc., and their bearing upon the subject of irrigation and water storage. . .

The Chief Signal Officer expresses his opinion that the economic value of these reports is such as to justify their being printed by Congress for the information of the public.

REDFIELD PROCTOR,
Secretary of War.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES,
Washington, D. C.

SIGNAL OFFICE, WAR DEPARTMENT,
Washington City, February 28, 1891.

SIR: Referring to the resolution of the House of Representatives of May 23, 1890, that "the Secretary of War be, and is hereby, requested to transmit to the House of Representatives the reports that have been prepared under the direction of the Chief Signal Officer of the Army upon the climate of Arizona and New Mexico and other parts of the arid region, together with such tables particularly of rainfall, temperature, evaporation, and other matters as relate thereto, with such corrections, alterations, and additions as may be deemed advisable by the Chief Signal Officer, who will also express his views as to the value and importance of said tables of temperature, precipitation, evaporation, etc., and their bearing upon the subject of irrigation and water storage," I have the honor to transmit herewith text, tables, and charts which illustrate Arizona, California, Colorado, New Mexico, Nevada, and Utah particularly with reference to temperature and rainfall, together with such other notes on the climatic conditions of the region as appear pertinent and important.

Owing to the multiplicity of duties which have lately surrounded the Chief Signal Officer this report has been delayed beyond the time at which he would have chosen to submit it. Even at the present time the Chief Signal Officer has been unable to give it all the personal attention he desired. In view of this fact he delegated to the officer in charge of the records division, First Lieut. W. A. Glassford, Signal Corps, certain portions of the region with which he was acquainted through residence and meteorological examination. Lieutenant Glassford's remarks appear as separate memoirs upon the climate of Arizona, New Mexico, California, and Nevada.

The Chief Signal Officer has treated the subject of the climate of the arid region in perhaps a drier and more practical manner, confining himself to a presentation of such facts and clear deductions as may be of greatest utility to investors and settlers, as well as of theoretical interest to the

more exacting student of irrigation problems. The resulting deductions clearly confirm the Chief Signal Officer's theoretical opinion that the arid regions can not be treated as a climatic unit with an entire disregard of physical boundaries, and that no general statement or treatment can be outlined which will be of equal applicability in every State and Territory within the region under discussion.

The Chief Signal Officer expresses his opinion that the climatic data presented herewith are of great value and importance to any corporation or community contemplating investments in works of irrigation or for water storage, and recommends that they be printed for the general information of the public.

Very respectfully,

A. W. GREELY,
Chief Signal Officer.

The SECRETARY OF WAR.

REPORT ON THE CLIMATOLOGY OF THE ARID REGIONS OF THE UNITED STATES, WITH REFERENCE TO IRRIGATION.

By Gen. A. W. GREELY,
Chief Signal Officer, U. S. Army.

The object of the resolution, in answer to which this report and accompanying charts and tables are submitted, calls for a consideration of this question from a standpoint indicated by the Chief Signal Officer three years since. In a previous report to the Senate (on the "Rainfall of the Pacific Slope," etc., Fiftieth Congress, first session, Senate Executive Document No. 91), in February, 1888, before Congress took legislative action regarding the arid regions of the United States, the Chief Signal Officer pointed out the magnitude of the irrigation question as affecting the future agricultural interests of the population over one-third of the area of the country, and also specifically expressed the opinion that this question could not be satisfactorily discussed and treated without an accurate knowledge of the rainfall over the area of each particular drainage basin.

In treating this subject exhaustively, a large volume could be prepared which would undoubtedly be of great value as a standard work of reference in connection with tentative enterprises for the development of the natural resources of the United States west of the one hundredth meridian, but in a report of this kind to Congress brevity is an essential feature, even if the limited time available for the preparation of the accompanying data did not, as it does, impose it upon the Chief Signal Officer.

In answering the resolution, the attention of the Chief Signal Officer has been directed to the States and Territories of Arizona, California, Colorado, Nevada, New Mexico, and Utah. The States and Territories enumerated comprise in their limits those sections of the United States over which the rainfall is the smallest, the prevailing temperatures the highest, the evaporation of moisture most decided, and the amount of sunlight the greatest; thus presenting, and in some localities combining, such maximum meteorological phases as are of an adverse character to the regular and successful prosecution not only of agricultural enterprises, but, indeed, to the development of any other industry wherewith an abundant supply of water is an essential factor, and for which in these regions the adventitious aid of irrigation is indispensable. The above-mentioned meteorological conditions are less marked and less unfavorable in the remainder of the arid regions, viz, northern California, Wyoming, Montana, the eastern parts of Oregon and Washington, and western portions of Nebraska, Kansas, Indian Territory, Texas, and the Dakotas.

It is a serious error and somewhat prevalent that one can predicate the necessity of irrigation by simply ascertaining and comparing the annual rainfalls of various localities. It needs no elaborate discussion to demonstrate not only the practical inutility of such comparisons, but also the certainty that deductions therefrom must be nearly always misleading and frequently detrimental.

To illustrate this point may be quoted the annual rainfall of Pittsburgh, Pa. (36.71 inches), and that of Julian, San Diego County, Cal. (37.68). As these rainfalls are almost identical in amount, it would naturally be assumed by one not conversant with the peculiar distribution of

meteorological conditions of the United States, which conditions depend almost as much on peculiar locality as on latitude, that any industry or pursuit in which rain is an important element would succeed as far as water is concerned equally well at either place. There could be no greater mistake, however, as the following data of average rainfall for Julian, Cal., and Pittsburgh, Pa., clearly indicate.

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	Length of record.
	In.	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*	*In.*	*Years.*
Julian	4.81	8.25	9.85	5.98	0.73	0.00	0.00	0.00	0.00	0.55	2.23	5.28	37.68	6
Pittsburgh	3.21	2.62	2.85	2.61	3.07	3.59	4.96	3.45	2.53	2.49	2.58	2.75	36.71	19

The rainfall at Pittsburgh is substantially uniform throughout the entire year; the greatest differences between the separate amounts for any two months being only 6 per cent. of the entire amount for the year. At Julian, however, during seven consecutive months, from the first of May to the last of November, only 9 per cent. of the annual amount falls, while nearly one-half (48 per cent.) of the entire precipitation of the year occurs during the months of February and March.

This leads up to the main point, evident to every farmer, that the most important characteristic of the rainfall, apart from quantity, is its proper distribution throughout the year. Over the greater part of the United States the rainfall of the winter months is not of such direct and vital importance to the agriculturists as are the rains of the late spring and of the early summer. This has been illustrated in a report of the Chief Signal Officer (see Senate Ex. Doc. 115, Fifty-first Congress, first session), wherein he has pointed out that the disadvantages of Nebraska, with a rainfall from one-half to one-third below that of the States of Maryland, New York, Pennsylvania, and the interior of Virginia, are neither as extensive nor as material as might seem evident to one casually considering the effect of the annual rainfall. In this respect the great advantage of Nebraska, and this advantage likewise obtains in parts of Kansas and South Dakota, is in the suitable distribution of rainfall throughout the year, particularly during the months of April, May, June, and July, which may be called, not inappropriately, the critical agricultural months from the standpoint of staple crops grown in Nebraska. Over this State as a whole, the percentage of rainfall in each of these four months closely agrees, that for April being about 11 per cent. of the entire annual rainfall; that for May, 17; for June, 16; and for July, 16 per cent.; in other words, substantially 60 per cent., or three-fifths of the rainfall for the year falls during the four months mentioned, the period when such rainfall is most needed for the growth and development of the staple crops.

Although the distribution of rainfall in certain portions of the Atlantic coast States is nearly uniform for the different months, and although the annual distribution on the Pacific coast is known to be peculiar and marked, yet there has been a popular tendency to ignore these widely varying rainfall characteristics and attribute the same climatic conditions to immense areas with widely differing physical features, and also at greatly varying distances from the ocean, the source of rain. Particularly has misapprehension existed as regards general scarcity of rain and its unequal distribution throughout the year, since the same rainfall conditions have often been attributed to the entire arid regions of the United States, which by general consensus of opinion cover the entire United States west of the one hundredth meridian.

Even among the better informed and casual observers of meteorological conditions, the tendency has been to concur substantially with this popular opinion, excepting so far as it relates to the coast region of northern California, Oregon, and Washington. While the belief of the casual observer as to the scarcity of water west of the one hundredth meridian may be considered true in a general sort of way, yet it is not so in many specific and important cases, for the latest rainfall maps of the United States compiled at the office of the Chief Signal Officer show that there are enormous areas of country in the so-called arid regions where the rainfall exceeds 15 inches (by which isohyetal, or line of equal rainfall, the arid region is, by some, limited), and even very large areas over which the annual precipitation exceeds 20 inches, and in lesser areas 25 inches.

The opinion also obtains among many that the rainfall of the arid regions is typically represented by the California rainfall, with a wet season from November to March, and a practically, if not totally, rainless season for the rest of the year. Such a typical curve may not be inappropriately represented by San Francisco, where the average rainfall is as follows: January, 5.10 inches; February, 3.60; March, 3.26; April, 1.93; May, 0.67; June, 0.15; July, 0.02; August, 0.02; September, 0.16; October, 0.98; November, 2.87; December, 5.32; year, 24.08 inches; length of record, 42 years. The data show that 43 per cent. of the annual precipitation occurs at San Francisco during the months of December and January, while only 2 per cent., or substantially no rain, falls between the 1st of June and the 1st of October.

This peculiar distribution of rainfall, however, is not characteristic of the entire arid region, and it obtains definitely only in California (with slight exceptions) and a portion of Nevada. In Oregon and Washington the autumnal rains begin gradually earlier, as one goes northward, commencing nearly a month earlier in Washington, where, however, they cease somewhat earlier in the spring.

These peculiarities as to the annual distribution of rain being so marked and varying, even on the bordering coast of the Pacific Ocean, strongly evidence the necessity of a most careful examination of the annual precipitation régime for the rest of the arid region, over which the rainfalls, as a rule, are less plentiful and more dependent on exceptional causes, and consequently more liable to extreme and unusual fluctuations.

This examination and comparison the Chief Signal Officer has personally attempted as far as the limited time at his disposal would permit, and the general distribution for different States is shown on Chart No. 1 where the typical rainfall curves are what may be called composite, being made up from selected stations, with long records, in the State or Territory to which the curve applies. The values here given are drawn from stations selected with reference to their geographical position as well as to their agreement with the common rainfall régime, and so may be considered as fairly representative of adjacent regions as well as of their immediate locality.

It will appear clearly from these curves, as is more evident by detailed examination of the original data for separate stations, that the varying periods of *wet** and *dry* or *very wet* and *very dry* months are almost as many in number as the States to which they obtain. These curves also make it apparent that, in order to insure in the arid regions economic and successful crops by irrigation, the growth of only such crops should be attempted or encouraged in different sections as are suited to the character of the local soil, the varying local seasonal temperatures, and which by their seasonal period of germination and development would have the advantage of the rainfall of those months in which the greater part of the general precipitation occurs. The advantage of this plan would be that it thus reduces to the minimum the quantity of water, absolutely essential to the success of the crops, which must be caught, impounded, preserved, and delivered on the ground at a considerable expenditure of labor and material.

The general distribution of rainfall throughout the year over the region west of the one hundredth meridian may briefly be defined as follows:

January.—This is a *very wet* month over all of California except the southeastern portion, where it is *wet*. In Oregon and Washington the coast region is *very wet* and the eastern parts of the States *wet*. It is also a *wet* month over Nevada and the greater part of Idaho. It is a *dry* month over western Texas and the western half of the Dakotas. It is *very dry* over the eastern half of the two Dakotas, the eastern parts of Nebraska, and over the greater part of Kansas. Over Montana, Wyoming, Colorado (except the eastern half, where it is *very dry*), New Mexico, and Arizona the amount of precipitation is either about the proportional amount with reference to annual rainfall, or deviates slightly therefrom.

*NOTE.—The terms "wet" and "dry" with reference to months is something more than relative as used in this report. Here it is defined fully with reference to average rainfall, the same rule being followed as has been employed elsewhere. A *wet* month is one in which 50 per centum more rain falls than the average, and in like manner a *very wet* month is one in which double the usual amount of rain occurs, that is to say, 8.33 per cent. of the annual rainfall is the proportional amount for each month, so that under the definition here given a month with 12.5 of the average yearly rainfall is a *wet* month and one with 16.7 is a *very wet* month. In like manner a *dry* month is one in which the average rainfall does not exceed 4.2 per centum of the annual rainfall, and a *very dry* month is one in which 2.1 per centum, or less, of the annual amount occurs.

February.—This month is *wet* over Washington, Oregon, and California (except the southwestern part of the State, where it is *very wet*). It is *dry* over the Dakotas southward to western Texas; elsewhere the rainfall for February shows but slight deviations from its proportional amount with reference to the yearly range.

March.—A *wet* month for the western parts of Washington, Oregon, and California. A *dry* month over western Texas, the eastern part of New Mexico, Nebraska, the Dakotas, and Montana.

April.—A *dry* month in the southern half of Arizona and New Mexico with tendencies in localities to be *very dry*. A *wet* month in the interior valleys of southern California, over western Colorado and parts of eastern Utah, in South Dakota, and over considerable portions of the Indian Territory and northern Texas.

May.—A *dry* month over the western parts of Washington and Oregon, over all California, the western half of New Mexico, and the northern half of Arizona, and a *very dry* month in southern Arizona. A *wet* month over Texas (except in the neighborhood of El Paso) northward to include the Indian Territory, northeastern Colorado, Kansas, Nebraska, North and South Dakota, Wyoming, and the greater part of Montana. However, in northeastern Wyoming, western Nebraska, western Kansas, southeastern Colorado, and the western part of the Indian Territory the month is *very wet.*

June.—The month is *very dry* over California, southern Nevada, southern Utah, and Arizona, and is *dry* over western Colorado, northern Utah, central Nevada, and the western parts of Oregon and Washington. It is a *very wet* month over Montana, North and South Dakota, Nebraska, and Kansas. It is *wet* over Indian Territory, northwestern Texas, extreme eastern Colorado, and all of Wyoming except the extreme southwestern part, and over northern Idaho.

July.—A *very dry* month over California, Oregon, Washington, Idaho, and a *dry* month over northern Utah. A *very wet* month over the eastern parts of North and South Dakota, southwestern Nebraska, extreme western Kansas, eastern Colorado, western Texas, New Mexico, and the eastern part of Arizona. It is a *dry* month over western Arizona (except in the extreme southwestern part), southern Utah, northern Nebraska, and northern Montana.

August.—A *very dry* month over California (where it is practically rainless), Nevada, Oregon (where it is nearly rainless), Washington, and western Idaho. It is *dry* over eastern Idaho and extreme northwestern Montana. It is *very wet* over Arizona, New Mexico, and the mountain region of Colorado and southern Utah. It is *wet* over western Kansas, the panhandle of Texas, western Nebraska, and the eastern parts of North and South Dakota.

September.—*Very dry* and nearly rainless in California; *dry* over Nevada, southwestern Utah, Idaho, southern Oregon, and the greater part of Wyoming. It is a *wet* month over all of Texas (except the panhandle and southeastern part) and also in extreme southern Texas, along the coast where the month is *very wet.*

October.—The month is *dry* over western Arizona, southern California, southern Nevada, and in portions of the interior of southern Oregon and northern California. Elsewhere about the proportional amount of the annual rainfall occurs.

November.—A *wet* month in western parts of Oregon, Washington, and northern California. A *very dry* month over the panhandle of Texas, thence northward through western Kansas and western Nebraska, and the eastern parts of the two Dakotas; but elsewhere from the one hundredth meridian to the crest of the Rocky Mountains it is a *dry* month.

December.—A *dry* month over western Texas, western New Mexico, Kansas, eastern Colorado, Nebraska, North and South Dakota, with a tendency to be *very dry* in the extreme eastern portion of New Mexico, extreme southeastern Colorado, and extreme northwestern Kansas. The month is *very wet* over western Arizona, California, the greater part of Nevada, Oregon, and Washington.

It must be clearly understood that these terms, *wet*, *very wet*, *dry*, and *very dry*, refer not to the absolute quantity of rainfall over the regions mentioned, but to the average monthly quantities with reference to the proportional part of the annual rainfall, that is, if equitably distributed, 8.33 per cent. of the year's rain would fall in each month.

Attention is especially called to the fact that a paper of this kind must generally deal with averages, but in connection with the subject of irrigation it is of particular importance to briefly consider the question of excessive rainfalls and also of prolonged periods of drought.

In this connection it seems also important to consider the absolute humidity conditions over the arid region, that is, the actual quantity of aqueous vapor contained in each cubic foot of air at or near the surface of the earth.

On charts Nos. 2 and 3 are shown typical curves with reference to the absolute humidity of the air, which is expressed in the number of grains of water in each cubic foot of air. In preparing these charts it has been necessary to ignore State lines, as the distribution of moisture and damp air depends so very largely not only on the contiguity to the ocean, but also on the direction of the prevailing winds and the character of the intervening country over which the wind must pass from the source of water supply. Consequently these typical curves have been drawn for the Pacific coast region, the interior of California, and for Nevada, Utah, Colorado, New Mexico, and Arizona. The important bearing which the prevalence of moisture or dry air has upon growing vegetation is well known, but further than this it has an equally important bearing upon the methods of irrigation, since the drier the air the greater the quantity of stored or flowing water which will be evaporated thereby. As will be noted by reference to these charts, the greatest quantity of water is not found in the same month over all parts of the arid region.

In addition to the charts, it appears advisable to make some general statements as to the prevalence of moisture or dry air over the regions under consideration. It is impracticable to draw for general conclusions any hard and fast line as to what constitutes *very dry* or *very wet* air, as this question turns on the normal temperatures, which in turn depend materially on the latitude, the elevation, and the locality with reference to great bodies of water.

In general terms, however, it has been decided for present purposes to consider as *very dry* that air which contains during the colder half of the year—from October to March, inclusive—less than 1 grain of aqueous vapor to each cubic foot of air over Montana, Idaho, and the Dakotas, and less than 2 grains of aqueous vapor to each cubic foot of air over Arizona and New Mexico, with intermediate conditions for the intervening country. During the six warmer months of the year—April to September, inclusive—the limiting figures have been placed at 2 grains for the more northerly sections named and 3 grains for the more southerly. Under these limitations it appears that there is no *very dry* air over the arid regions during October, but that over the whole region west of the one hundredth meridian, except in California, Oregon, and Washington, along the coast region of the Pacific Ocean, the air gradually grows drier until January, when there is less than 1 grain of aqueous vapor to a cubic foot of air over the Dakotas, Wyoming, Kansas, Nebraska, and the greater part of Colorado; while less than a grain and a half per cubic foot is then to be found over northwestern Texas, the greater part of New Mexico, northern Arizona, Utah, Nevada, Idaho, and the western parts of Washington and Oregon.

These conditions of extreme dryness in the sections just mentioned remain substantially unchanged during February, but by the end of March the nearly normal conditions of October again prevail. Indeed, the spring months of March and April and the autumn months of September and October show for these regions about the normal conditions of the air as regards moisture, which conditions are, of course, always of greater dryness than in States of the same latitude east of the Mississippi River and along the west Gulf coast. During May and June the air is *very dry* over eastern California, New Mexico, Colorado, Arizona, Utah, and Nevada, over which regions a similar condition obtains during June, July, and August, except for southwestern Arizona, where the air becomes moderately moist. Exceedingly *dry* air during the summer and early autumn, with high mean temperatures of 70° and over, where there is less than 2 grains of water to each cubic foot of air, is found over southwestern Utah and eastern Nevada during June and September, and over central Nevada during July and August. In general it occurs that the air is moderately moist over the Dakotas, Wyoming, western Nebraska, western Kansas, and Colorado from June to August, inclusive, except during unusual meteorological conditions, fortunately rare and local, which occur during periods of deficient summer rainfall and prolonged drought, when the air becomes *exceedingly dry*. During such periods of extremely dry air it occurs, although infrequently, that atmospheric disturbances draw this *very dry* and highly heated air over extensive sections of country lying between the drought-stricken regions and adjacent centers of atmospheric disturbance.

No doubt exists in the mind of the Chief Signal Officer that a general introduction of irrigation and the consequent growth of vegetation over regions to the southwest of Kansas would very

largely ameliorate the unfortunate meteorological conditions which at times result in the destruction of crops in Kansas by extremely hot winds. The Chief Signal Officer has elsewhere pointed out that the very hot southerly and southwesterly winds experienced over Kansas and Missouri from September 12 to 15, 1882, were intimately connected with a drought, over southwestern Kansas and eastern Colorado, so prolonged that the surface of the country to the west and south of the wind-stricken districts was thoroughly parched and fiercely heated by the constant unclouded summer sun, whose action was facilitated by a continued absence of rain. It has also been pointed out that the frequency and intensity of similar visitations of very hot, dry winds have materially diminished on the Pacific coast since 1859. For 7 years prior to that year, when the interior valleys of California were substantially uncultivated, the number of hot days averaged 13 yearly; from 1859 to 1871 the average yearly number was reduced to 4. The opinion was expressed and reiterated that the immense quantity of land placed under irrigation in California, and the consequent vast increase in the area of vegetation, was an obvious reason why there should be a diminution in these destructive winds. As the regions from which the hot winds proceed have naturally a small rainfall, any steps for the general protection of adjacent countries must be gradual, and also involve a great outlay of labor and money.

Evaporation is a very important element in connection with irrigation. High temperatures and strong winds favor evaporation greatly, since at high temperatures not only will the air contain more aqueous vapor, but the water passes more quickly into the gaseous state, and the greater the quantity of air, whether "wet," "dry," or "very dry," which passes over the water surface, so much the greater the quantity of water lost by evaporation. If only 20 or 30 inches of water were lost annually evaporation would be a factor of minor importance, but over the arid region the water which would be evaporated if freely exposed would attain a depth ranging from 5 to 9, and possibly in some cases 15 feet annually. Under these circumstances it is essential to consider these phenomena.

The depth of water evaporated over free-water surfaces will be stated later, but it is advisable to call attention to Chart No. 4, which shows the variation in evaporation throughout the year. These curves are composite ones, made up from selected stations, and, therefore, fairly represent evaporation conditions over the States or sections to which they pertain. It is important to note that while evaporation is most rapid during the month of June in Arizona, Colorado, and New Mexico, yet in Utah and the interior valleys of California the greatest amount does not occur until the months of July and August. In Nevada the maximum evaporation takes place in August, while on the coast of California, curiously, it is delayed until the month of October.

As a general rule the climatic conditions of the arid regions are marked by the presence of small amounts of aqueous vapor in the atmosphere, relatively high summer temperatures, and the prevalence of quite strong winds, which three conditions greatly facilitate evaporation. There are but few satisfactory observations of evaporation in the arid regions, and the crudity with which most of these observations have been made is such as to render many of them of doubtful value.

Fortunately, investigations of this subject have been made by Prof. Thomas Russell, of the Signal Service, in which the final values, though obtained by somewhat empirical methods, are dependent in part upon careful observations of evaporometers made by skilled observers of the Signal Corps, and partly dependent, by theoretical connection, upon Signal Service meteorological observations of wind, temperature, and dew point for preceding years.

The figures obtained and the curves drawn by Professor Russell show the amount of possible evaporation from free-water surfaces under favorable conditions, and it is believed that they can be depended upon as fair approximation to the existing physical conditions. In any event these are the only data extant which can be applied to the extensive region under discussion, and so must be taken for what they are worth.

It is deemed proper to again state that these figures and curves do not represent the actual evaporation over the whole surface of the State, but only the possibilities of evaporation. It should be further understood that the actual amount of water taken up by the atmosphere depends upon the opportunity of evaporation, which in turn depends upon the relative amount of water surface, the wetness or dryness of the soil and its constituents, and upon the amount and character of vegetation covering the region under consideration.

It may be questioned by those who have not considered this subject in view of the observed facts, that these possible evaporations are far in excess of the actual amounts which could be

absorbed from a water area, say, of 100 square miles, but such would be an erroneous supposition as indicated by facts observed on an enormous scale. The most convincing and striking case is that of the Caspian Sea, with an area of about 180,000 square miles. As this is a closed sea of very large area, it is in fact the largest evaporometer in the world, where the silent but powerful operation of nature's forces in this direction are susceptible of direct observation and measurement. It appears from Woeikof (Climates of the Earth, p. 226) that the actual annual evaporation from the Caspian Sea is equal to 1.09 metres, or 43 inches of water. These figures have been determined from observed heights of the water surface of the Caspian Sea, in connection with the measured inflow of the Volga and other contributing rivers.

The great contrast between evaporation over extended water surfaces within the limits of the United States is illustrated by Professor Gilbert in his valuable and exhaustive monograph on Lake Bonneville, which came to hand just as this report was finished. Professor Gilbert gives the amount of evaporation over the surface of Lake Michigan as equal to a layer of water 22 inches deep, this result being derived from the report of Mr. D. Farrand Henry on the meteorology of the Laurentian lakes and the report of the Chief of Engineers for the year 1868, Washington, 1869, p. 980. Professor Gilbert estimates that 80 inches of water are yearly removed from the Great Salt Lake, an estimate closely agreeing with the evaporation values determined by Prof. Thomas Russell, Signal Service, for this region, since according to his calculation the evaporation at Salt Lake City, near the southeastern shore of Great Salt Lake, amounts annually to 74.4 inches in depth.

Professor Gilbert speaks of this locality as follows:

* * * As in other desert regions, precipitation here results only from cyclonic disturbance, either broad or local, is extremely irregular, and is often violent. Sooner or later the "cloud-burst" visits every tract, and when it comes the local drainage-way discharges in a few hours more water than is yielded to it by the ordinary precipitation of many years. The deluge scours out a channel which is far too deep and broad for ordinary needs and which centuries may not suffice to efface. The abundance of these trenches, in various stages of obliteration, but all manifestly unsuited to the everyday conditions of the country, has naturally led many to believe that an age of excessive rainfall has but just ceased—an opinion not rarely advanced by travelers in other arid regions. So far as may be judged from the size of the channels draining small catchment basins, the rare, brief, paroxysmal precipitation of the desert is at least equal while it lasts to the rainfall of the fertile plain. * * *

Experiments in Sydney, New South Wales, under the direction of Mr. H. C. Russell, government astronomer, shows that the amount of evaporation from day to day depends very materially upon the conditions of the soil. If it is wet on the surface evaporation proceeds much faster than over water, but as the ground dries the earth evaporates less than the water, and, what is a very important matter when considered with reference to large areas of the arid region of the United States, when the soil becomes dry and is packed hard, surface evaporation substantially ceases, even when the soil is damp enough below to keep vegetation growing.

These experiments in New South Wales show the very important factor which suitable vegetation will exercise in bringing subsoil water to the surface, and thus increasing evaporation during the dry portions of the year. The results of the experiments show that evaporation from grass soil is more regular than from bare soil, and in the course of the year it lost more than dry earth by 14 per cent. and also evaporated 9 per cent. greater than water surfaces.

Reeve's experiments at the London Water Works show evaporation from grass land to be 12 per cent. less than from water. In Sydney, during a year of deficient wind, in 1885, the water evaporated most, but in a wet and windy year the grass evaporated most.

It must be admitted, however, that careful and extended observations will be necessary before the definite relations of different classes of vegetation to evaporation have been determined with that accuracy which the importance of this question to the farmer demands.

In 1888 special observations upon evaporation were made at Lake George, New South Wales—a body of water with about 80 square miles of surface, at an altitude of 2,200 feet and surrounded by high land; the lake itself is shallow, espec ally at the margin. During 1888 the evaporation amounted to 47.72 inches, which in round numbers was twice the amount of the whole rainfall. In 1889 a valuable set of observations were made by means of a tank at Lake George, while the evaporation of the lake was also determined from day to day. In 1889 the evaporation of the lake was 44.29 inches, which gives an average of 46 inches for the 2 years.

Evaporation observations made from a pan in comparison with those from the Piché evaporometer at Sweetwater Dam, San Diego County, Cal., show that the Piché evaporometer indicates, if anything, less than the true value of evaporation from free water surfaces. This deficiency amounts to about 8 per cent., the Piché evaporometer indicating for the 7 months of the year 29.88 inches, the pan observations 32.33 inches.

In 1889 observations made from water in pans at Albuquerque, N. Mex., under the supervision of the U. S. Geological Survey, showed evaporations as follows, in inches: June, 9.6; July, 9.6; August, 9.3; September, 7.5; October, 4.1; a total in 5 months of 40.1 inches, which would probably amount for the whole year to about 80 inches, the evaporation as calculated by Professor Russell.

The average amount of water which could possibly evaporate yearly, expressed as depth of water in inches, and also in cubic miles of water, is as follows:

States.	Total amount.	Average depth of possible evaporation.	States.	Total amount.	Average depth of possible evaporation.
	Cubic miles.	*Inches.*		*Cubic miles.*	*Inches.*
California	170.9	67	New Mexico	146.2	78
Utah	90.9	68	Arizona	145.9	80
Colorado	108.6	69	Nevada	145.8	90

As is stated above, a layer of water to the depth of 67 inches could evaporate from the entire surface of California during a year of normal temperature, wind, moisture, and sunshine, but the difference in the amounts which could evaporate over different parts of the State are very great, increasing very rapidly inland, being about 37 inches along the immediate coast and rising to about 50 inches in the extreme northwestern part, 84 inches in the northern part, and over 100 inches in the southern part. In the very extreme northeastern part—in the Fort Bidwell region—evaporation, however, barely reaches 50 inches. Over fully one-third of California—the extreme eastern, and particularly the southeastern portions—the possible evaporation could reach, if free water surfaces continued throughout the year, the depth of 7 feet or more.

Over Utah the climatic conditions affecting evaporation are extremely constant in their combined operation, and probably of nine-tenths of the entire area the possible annual evaporation would neither exceed 75 inches nor be less than 70 inches.

Over Colorado the resulting conditions are likewise constant for the State as a whole, the possible evaporation ranging between 65 and 70 inches.

The conditions for evaporation in New Mexico are also very constant in action, and are quite accurately represented by the data from three stations, differing widely in geographical position, elevation, etc.—Fort Stanton with a possible value of 76 inches, Santa Fé, 80 inches, and El Paso, Tex. (separated from southern New Mexico only by the Rio Grande River), 80 inches.

In Arizona the climatic conditions are such as to produce widely varying results, the difference between the extremes being well represented by the annual possible evaporation of 55 to 65 inches at Prescott and Fort Apache, respectively, in the highlands of the Territory. Over the belt of country extending from Fort Grant west and northwest to the Colorado River, and embracing a large portion of the Gila River above the junction of the Salt, also over the Maricopa and Yuma Desert and the lower portion of the valley of the Colorado-Grande, the possible evaporation rises to or exceeds 100 inches yearly.

Nevada, as a whole, is a State over which the phenomena of evaporation obtain to the greatest extent. There is but little, if any, part of Nevada where the possible evaporation does not exceed 80 inches annually, and this increases gradually from the northeastern to the southwestern corner, attaining, over the whole southeastern part of the State, a depth of more than 90 inches, and in some localities over 100 inches, annually.

The extreme dryness of the air would doubtless be relieved by irrigation, and this increase of the absolute humidity in the atmosphere would be considerable, locally in cases where light winds occur or calms prevail, while in cases where steady winds occur the benefit of the increased humidity would naturally be enjoyed by the country to the leeward of the irrigated section.

The relation of the actual amount of aqueous vapor in the air to the average temperature is an important one, and such relation is shown by the composite curves of temperature and aqueous vapor for each State on charts Nos. 2 and 3.

As might be expected, the actual quantity of water in the air increases, as a rule, with increasing temperature, so that the amount present is from two to three times as much during the summer as during the winter months. A careful examination shows, however, that the increase in the quantity of aqueous vapor is not commensurate with the increase in temperature from the coldest to the warmest month, so that, although there is much more water in the air during the summer months than during the winter, yet the dryness of the summer months is very much greater, owing to the average humidity. It would naturally be expected that the greatest amount of water would occur during the month of the highest temperature, but this is not so; for while this is true in some States and localities it is not true in others. For instance, in Nevada, as a rule, the warmest month is July, while the largest amount of water in the air occurs during August, thus making the humidity conditions of August considerably more favorable than those of July. Along the Pacific coast the largest amount of aqueous vapor obtains during August, while the warmest month is that of September. In the interior of California, however, different conditions obtain, the maximum amount of aqueous vapor occurring in July while the highest temperature is during August; that is to say, reverse conditions obtain in the interior valleys of California during July and August to those in the adjacent State of Nevada. In Arizona, Colorado, and New Mexico the greatest amount of aqueous vapor coincides with the highest monthly temperature, and the disparity between the humidity conditions of winter and summer is less marked and trying to vegetation than in California, Nevada, and Utah.

The frequency and average daily amount of precipitation are very important climatic characteristics bearing directly on this question of irrigation. In certain localities the rainfalls are frequent and come in moderate showers; in other places infrequent, with moderate daily rainfalls, while in other places very dissimilar conditions to these obtain, of infrequent rain occurring in heavy showers or very infrequent rainfalls in small amounts. For instance, the average amount of precipitation on each rainy day is 0.25 inch of water at Milwaukee, with 134 rainy days in the year; at Rochester, 0.19 inch daily average, with 171 rainy days; at Pensacola, 0.19 inch, with 124 days in the year; at Poplar River, Montana, 0.12 inch, with 83 days.

The question as to how rain comes—whether slowly and steadily in quiet showers or violently in large amounts—is not only important from the general standpoint of irrigation, but also from the practical question of storage by reservoirs. In Arizona, for instance, from 30 to 40 per cent. of the entire precipitation occurs in heavy showers, where the rainfall is upwards of 0.75 inch during a day, of precipitation, and frequently more than an inch falls in a single shower. At Fort Grant 31 per cent. of the rainfall occurs in heavy showers; at Fort Apache, 29 per cent.; at Fort Thomas, 30 per cent.; at Fort Verde, 38 per cent.; at Prescott, 41 per cent. In New Mexico, at Fort Wingate, 30 per cent. of the rainfall occurs in heavy showers, and at Fort Stanton 24 per cent., while at Santa Fé only 18 per cent. thus occurs. At Salt Lake City 19 per cent. of the precipitation is in heavy rainfalls, while at Winnemucca, Nev., only 5 per cent. thus occurs.

It is also most important to consider at what season of the year the very heavy rainfalls come, and as to whether the water is in such quantities as to render it possible to reserve it by storage for use during the drier portions of the year. It is evident, for instance, that the value of waste water stored for irrigation depends very largely upon the season of the year in which it is caught, since in the arid regions, where evaporation is so extremely rapid and constant, water which is caught and stored immediately after the ripening and harvesting of the important crops must be held for many months, subject to enormous loss in various ways, while, on the other hand, rainfall caught just before or at the beginning of the agricultural year will furnish to the irrigated land a much larger percentage of the water originally stored.

Again, is the storage water to be gathered from gradual rains or from violent thunderstorms and cloud-bursts? In this latter connection extracts from the Monthly Weather Reviews of the Signal Service show what may be expected in the way of violent floods, and the possible damage resulting therefrom. These data may be said to cover only the past eleven years, as the data prior to the year 1879 have never been properly collated or examined.

LIST OF EXCESSIVE AND DESTRUCTIVE RAINFALLS OF LATE YEARS IN ARIZONA, CALIFORNIA, COLORADO, NEVADA, NEW MEXICO, AND UTAH.

ARIZONA.

December, 1879.—At Phœnix on the 29th an unusually heavy rainstorm caused the river to rise 10 feet in 2 days.

August, 1881.—Near Wickenburgh, Ariz., a cloud burst, causing the Hassayampa River from being perfectly dry at sunset, August 6, 1881, to be a stream a mile wide at 11 p. m., and from 2 to 15 feet deep; in 13 hours the river was again dry. On the 17th a flood interrupted communication and did much damage in the Salt River Valley near Phœnix.

August, 1882.—Serious washouts occurred on the 24th between Casa Grande and Yuma.

December, 1883.—The Hassayampa at Wickenburgh, which had been dry for several months, suddenly rose on the 22d beyond the fording stage, remained high over the 23d, and then fell rapidly.

March, 1884.—At Florence on the 7th a cloud-burst flooded the streets 4 feet deep. On the 10th several miles of track were washed away east of Yuma. On the 11th the Gila broke through its levees and flooded Yuma.

June, 1884.—At Yuma the Colorado was in flood on the 9th and seriously washed the railway west of the town. Yuma itself took no damage because levees had been reconstructed since the Gila flood of March.

July, 1884.—The flooded Colorado washed away parts of the railway bridge at Yuma on the 1st and 3d.

September, 1885.—A freshet occurred at Pantano on the 9th. The railroad track was covered to a depth of several feet and damaged.

August, 1886.—This was a month of floods at Yuma. On the 1st, light rain fell during the greater part of the day. Seventy-five miles west of Yuma the rain was heavy, causing a washout on the railway and delaying trains. On the 15th there was a thunderstorm measuring 1.57 inches, of which 0.80 fell in 20 minutes; the railway was washed out both east and west of Yuma, causing a complete suspension of traffic for several days. On the 27th, heavy rain in the mountains washed out the track east of Yuma and delayed trains.

July, 1887.—On the 7th a remarkably heavy rain fell at Nogales, flooding streets, destroying bridges, and washing away railway tracks. During the prevalence of a thunderstorm on the afternoon of the 8th, a cloud-burst occurred on the east fork of the White River in the mountains east of Fort Apache. A volume of water 3 feet deep came down the cañon, which subsided in two hours. On the afternoon of the 13th another heavy rain occurred at Nogales in connection with which there was reported a cloud-burst in the mountains southeast of Sonora. Railway traffic was stopped for nearly a month.

August, 1887.—During the month there were numerous freshets in the Santa Cruz and Rillito Rivers.

September, 1887.—Heavy freshets came down the Santa Cruz and Rillito on the 9th, destroying several miles of track and some bridges near Pantano. On the 12th, 5 miles of track and three bridges were washed away on the Sonora railroad. Near Dragoon a railway embankment 50 feet high was washed out for a distance of 8 miles.

October, 1888.—On the 18th in a violent downpour of rain there were extensive washouts along the railway between Yuma and Texas Hill.

December, 1889.—On the 5th the Verde and Salt Rivers rose very rapidly and at Fort McDowell the Verde overflowed its banks. On the 6th the Verde overflowed at Fort Verde.

February, 1890.—At Fort Verde the river reached its highest flood mark on the 21st and washed out irrigating ditches. A large area of the Gila Valley was flooded during the latter part of the month and irrigating canals were severely damaged. On the 22d a sudden flood on the Upper Hassayampa destroyed the Walnut Grove reservoir, with great losses of life and property.

August, 1890.—The Gila was impassable for 10 days at Eagle Pass and ditches were damaged.

October, 1890.—Heavy thunder showers at Yuma on the 4th destroyed bridges and washed out the railroad.

CALIFORNIA.

September, 1877.—On the 12th during a heavy thunderstorm, between Pilot Knob and Cactus, on the Colorado Desert, a waterspout burst, destroying 400 feet of railroad.

January, 1878.—Successive gales caused many high records of precipitation to be made during the month. On the 7th there fell 1.83 inches at Santa Cruz, followed by 1.46 inches on the 8th. At Sacramento, 3.91 inches fell on the 15th and 16th; at Red Bluff, 9.12 inches from the 14th to 16th; at Los Angeles, 2.14 inches on the same days. Both at Los Angeles and Red Bluff railroad bridges were washed away and much damage was done throughout the country. At San Buenaventura and Santa Barbara wharves were carried away. On the 22d, 1.34 inches fell at Sacramento in 6 hours, and at Red Bluff 2.98 inches on the 21st and 22d. On the 24th, 1.60 inches was recorded at San Francisco, and at Red Bluff, 1.81 inches. On the 25th, 2.30 inches fell at Santa Cruz and the San Lorenzo River rose 5 feet.

December, 1879.—The rainfall recorded for the 20th at Los Angeles was 4.19 inches, which so swelled the mountain streams as to cause severe floods and washouts and interrupt railway communication for 36 hours.

January, 1881.—The latter half of this month is crowded with flood records in California. On the 18th the Sacramento River was full of driftwood at Sacramento City; on the 29th the river rose rapidly and measured 12 feet above low-water mark at 1 p. m.; on the 30th it stood at 24.5 feet above; and on the 31st it reached 26 feet above. During the night the levee broke 2 miles below the city and laid all the farms and orchards under water; on the other side, both above and below Washington, the levees broke and flooded all the tule lands. On the 18th the highest

water in 12 years was measured at San Jacinto. San Francisco on the 29th was visited with the heaviest rain ever known, causing much damage in the city and suspending all railway and telegraphic communication along the coast. Several miles of track were washed away in Santa Cruz County and the towns of Napa, Watsonville, and Marysville were flooded. On the 30th Camp Capitola was washed out to sea by a sudden rise in Soquel Creek, and but four houses of the town were left standing; at Windsor, in Sonoma County, 13 inches of rain fell in 70 hours; at Placerville, 7.61 inches fell in 24 hours, and eight men were buried alive in a slide of the railway bank. At Red Bluff on the 31st the Sacramento reached the height of 24 feet above low-water mark, and all low-lands were flooded, tracks were washed away and railroad cuts filled by landslides.

February, 1881.—The Sacramento River on the 4th reached the highest mark ever recorded, 26.5 feet above low water, and the town of Washington was flooded to a depth of 6 feet.

February, 1884.—At San Buenaventura 9.60 inches of rain fell during a single storm, which produced a freshet in the Santa Clara River which destroyed bridges and caused landslides. The Santa Ana River in Los Angeles County was so much swollen that its water reached the sea for the first time in 8 years. On the 17th a dam burst on the Los Angeles River destroying 40 buildings and doing other damage. From Los Angeles to Mojave in one direction, and to San Gorgonio in the other, the railway was seriously impaired. On the 21st the town of Fall Brook in San Diego County was washed away.

March, 1884.—During the first week of the month heavy rains did considerable damage in southern California, washing away the railway bridge at Colton. This disaster was followed on the 10th of the month by a washout of 6 miles of track west of Daggett.

April, 1884.—Heavy rains on the 9th and 10th caused washouts at Newhall, Keene, and Mojave. On the 18th the breaking of one of the San Joaquin levees flooded Lathrop.

December, 1884.—The first rains of the winter caused floods in several parts of the State. At Chico a levee gave way on Butte Creek. At Linden the San Joaquin flooded the town 3 or 4 feet deep. In Calaveras and Tuolumne Counties the mountain streams were so flooded as to cause suspension of travel. In Merced the lands were flooded for miles.

November, 1885.—In the latter part of the month occurred heavy rains in the southern portion of the State. The San Fernando tunnel caved in, the bridge at El Cajon was carried away, and in general railroad property suffered serious damage. At San Luis Obispo the rainfall measured 10.04 inches for the single storm, and great damage was done to the bridges.

January, 1886.—On the 25th the levee at Fresno, which retained the overflow water of the arroyos, burst and flooded three-fourths of the town. The heavy rain of the 18th and 19th swelled the Los Angeles River so that it overflowed its banks and submerged a vast area of the city and county; every railway bridge on the river was damaged, tracks were washed out in several places, four lives were lost and hundreds were made homeless. The money loss was estimated at half a million dollars.

April, 1886.—On the 11th 1.97 inches of rain fell at Los Angeles, doing such damage to the railway as far as Fernando as to delay trains.

January, 1888.—The heavy rains of the 3d and 4th, 3.39 inches falling in 24 hours, caused numerous washouts on the railroads near Los Angeles, suspending communication.

October, 1888.—From the Los Angeles Daily Herald of October 20: "A cloud-burst of extraordinary violence is reported on the desert along the line of the Southern Pacific Railroad. The rain came down in a perfect torrent, on the night of the 18th, causing numerous though not very large washouts between Cactus and Salton, Cal. The water fell in almost a solid mass at times, over 2 inches being registered at one place inside of an hour."

March, 1889.—Heavy rains caused washouts on the railroads in southern California, and traffic was generally suspended on the 16th. The Los Angeles River ran bank high, damaging the levee and the bridges and flooding parts of the city.

August, 1889.—The heaviest thunder, wind, and rain storm ever known upon the desert visited Daggett on the 17th; cellars were flooded and several houses blown down.

October, 1889.—On the 12th a rainfall of 7.58 inches was measured at Encinitas between 10 in the evening and 6 the next morning, which caused considerable damage; the storage reservoir at Cottonwood Creek broke and a large body of water rushed down the valley and washed away the railroad bridge. On the 20th 3.16 inches of rain fell at Los Angeles in 8¼ hours and stopped the cable roads. On the 23d 1.87 inches fell and numerous washouts occurred on the railroads centering in that city; the Santa Monica line of the Southern Pacific suffering the severest damage from a cloud-burst in the Santa Monica Mountains, which also destroyed a considerable portion of the Los Angeles and Pacific Railroad.

December, 1889.—At Los Angeles the heavy rains previous to the 15th caused considerable damage to the railroads, and the train service of the Southern Pacific and Santa Fé systems was interrupted by washouts. The bridges on the California Southern Railroad between Santa Ana and Los Angeles were washed away on the 23d. At Los Angeles the heavy rains from the 22d to the 26th caused considerable damage; streets were badly washed and the railroad bridges were generally destroyed. The Los Angeles River changed its channel south of the city, flooding the country.

January, 1890.—On the 25th a portion of Los Angeles was flooded by a rise in the river, and washouts occurred on the railroads. On the 27th a small portion of Fresno was flooded and the canals in that region overflowed, laying large tracts of land under water.

February, 1890.—Considerable damage was sustained near Los Angeles by the river again changing its course just south of the city.

COLORADO.

May, 1878.—Heavy rains on the 19th upon the divide at the head of Cherry Creek, 52 miles south of Denver caused a flood which swept away seven bridges, laid the lower part of Denver under water, and damaged the railroads.

July, 1880.—At Pueblo on the 13th the rains were very heavy and the creeks badly swollen. Immense damage was done in El Paso and surrounding counties; several bridges on the Denver and Rio Grande Railroad were carried away, and half a mile of track was washed out between Manitou and Colorado Springs. On the 23d three railway bridges and considerable track were destroyed at Colorado Springs.

August, 1880.—The heavy rain of the 21st caused many washouts on the South Park, the Kansas Pacific, and Denver and Rio Grande Railways.

July, 1881.—The remarkable rainfall of 1.10 inches in 20 minutes flooded Denver on the 31st.

August, 1881.—On the 8th a cloud-burst occurred at Central City, causing suddenly a stream of water from 4 to 6 feet deep in two streets. The extensive rains prior to the 20th did great damage in the central part of the State; washouts were numerous, and in some cases extended over 5 miles of track.

June, 1882.—At Denver, on the 10th, Dry Creek suddenly overflowed and destroyed many ho ses, and a similar flood was reported from Golden.

August, 1882.—At Black Hawk, in Gilpin County, a land-slide caused by heavy rains buried two houses and a large extent of track of the Colorado Central Railway. The Purgatoire River and the Cache la Poudre River overflowed. Serious washouts occurred on the Denver and Rio Grande Railway.

June, 1883.—Rapidly melting snow on the mountains caused floods in the South Platte tributaries, and two bridges were destroyed by the Cache la Poudre River at Fort Collins. West of the divide floods in the Grand and Blue Rivers destroyed nearly all the bridges in Summit and Garfield Counties.

May, 1884.—A sudden and destructive rise on the 29th in Frenchman Creek, near the Nebraska line, was conjectured to have been caused by a cloud-burst. Eleven men were drowned, and the flood subsided as rapidly as it had risen.

May, 1885.—A cloud-burst occurred on the 17th upon Horse Fly Mountain near Montrose. Culverts were destroyed and roads gravely damaged.

July, 1885.—The heaviest rain of the season fell at Fort Collins on the 9th, causing a washout on the railroad. On the 26th a cloud-burst on the divide, at the head of Cherry Creek, caused a sudden and disastrous inundation at Denver. During the evening of the 25th a cloud-burst occurred on the mountains above Templeton Gap and caused considerable destruction at Colorado Springs. The flood-waters when passing through the gap were 175 feet wide and 7 feet deep, thus showing a cross-section of about 1,000 square feet.

July, 1886.—A thunder storm on the evening of the 20th near West Las Animas swelled all the streams of that region. The overflowing Purgatoire destroyed many bridges, and on the Atchison, Topeka and Santa Fé Railway 15 miles of track were washed away.

August, 1886.—On the 1st a very severe rain accompanied with funnel-shaped clouds and hail set in over the valley of Monument Creek near Colorado Springs. A freshet at once began to rage, poured down the narrow valley, and did great damage in the town, while bridges were quite generally destroyed.

May, 1887.—Thunder storms on the 26th, 27th, and 28th caused washouts on the Atchison, Topeka and Santa Fe Railway both east and west of Las Animas.

July, 18-7.—A cloud-burst occurred in Tucker Cañon, near Golden, on the afternoon of the 14th. A slight rain storm succeeded peals of thunder, and suddenly a wave nearly 20 feet high swept down the narrow cañon, which for weeks had been quite dry. Many persons narrowly escaped death and every trail was obliterated.

July, 1889.—On the 19th the Purgatoire at Trinidad, in Las Animas County, began to rise very rapidly and in 1 hour had overflowed its banks.

August, 1889.—On the evening of the 9th a rain storm visited Florence, and though it lasted but 2 hours was the severest on record. The Arkansas reached a point higher than ever before known; every bridge within 10 miles of the city was washed away. Three hundred yards of the Atchison, Topeka and Santa Fé Railway were washed out, and the Denver and Rio Grande track was in places almost obliterated. The same storm flooded Pueblo, and between that city and Salida the Denver and Rio Grande track was washed out in five places, each of considerable extent.

August, 1890.—On the 14th the heaviest hail and rain storm on record at that place visited Colorado Springs. The total amount of rain and melted hail was 3.18 inches, of which from 2.75 inches to 3 inches fell in 30 minutes. The great volume of water did considerable damage to railroad tracks and bridges and traffic was temporarily suspended.

NEVADA.

June, 1882.—On the 11th 500 feet of track west of the railroad station at Winnemucca were washed away by heavy rain.

June, 1884.—On the 10th a cloud-burst in the Humboldt Mountains flooded valleys near Rye Patch and badly damaged the Central Pacific track for 30 miles.

August, 1884.—A destructive flood occurred at Eureka on the 7th. The water came from Ruby Hill and entered Adam's Hill Cañon. When the stream reached the Williamsburg mine it was 30 feet wide and 7 feet deep. The Titus mine was filled with water and one man drowned.

December, 1889.—The Rio Virgen, in the southern part of Lincoln County, rose so high under the unprecedented rainfall, that it overflowed its banks in many places and changed its course, washing away everything in its path. Lake Tahoe is reported as having risen 12 inches.

August, 1890.—On the 11th two intensely black thunder clouds appeared at Palmetto over the crests of the surrounding mountains, one approaching from the north and the other from the east. A short distance from Palmetto these clouds seemed to join and rushed with extraordinary swiftness toward the town. The resultant cloud was riven with lightning, and the air became filled with a terrific roar above which the thunder was hardly audible. A column of water poured down, excavating a trench about 500 feet long, and, in places, 7 feet deep and 20 feet in width. Within 10 minutes the entire lower part of the Palmetto Valley was 2 to 3 inches under water, and the cañon leading to Fish Lake Valley was a torrent. The stage road was obliterated for 9 miles, although the rainfall extended but little beyond Palmetto.

The storm of the 7th at the same place was very similar to that of the 11th, except that the rain seemed to come from one cloud only. This cloud appeared to touch the ground and roll down the mountain side, and the rain covered a greater area.

NEW MEXICO.

September, 1880.—The rainfall of the 21st, measuring 2.80 inches, caused a flood at Silver City, which damaged buildings and drowned a boy.

August, 1881.—Three floods visited Silver City during the month, on the 7th, the 15th, and the 20th, of which the second did considerable damage.

October, 1881.—Great damage was done to the Atchison, Topeka and Santa Fé Railway on the 6th, and all traffic was suspended south of Las Vegas. In the Rio Grande and Galisteo valleys there were numerous heavy washouts, and in many places the road bed was covered with great heaps of sand.

August, 1883.—An apparent cloud-burst on the Turkey Mountains, and the flood consequent upon it, interrupted railway travel near Tipton.

August, 1884.—The Pecos River reached a high stage during the latter part of the month at Puerto de Luna. Much damage was done to the dams and irrigating ditches.

April, 1886.—Heavy rain on the 19th and 20th caused Santa Fé Creek to assume the proportions of a river. Telegraph communication was interrupted, railroad bridges were washed away, and several miles of track destroyed.

June, 1886.—High water in the Rio Grande, in the Valverde, completely overflowed the towns of Chamberino, Launcen, and Nombre de Dios, this on the 2d and 3d of the month. Between the 7th and 10th the freshet having moved downstream washed away houses and railway tracks, destroyed bridges, and submerged three towns in the Mesilla Valley.

September, 1886.—Between the 11th and 13th, heavy rains fell between Socorro and Albuquerque, washing away several miles of track, a bridge over the Salida was rendered insecure, and several houses were destroyed in Socorro and San Marcial.

July, 1887.—Heavy washouts occurred in the southwestern part of the Territory.

June, 1888.—A heavy rainfall on the 18th, on the Sierra Blanca, caused a sudden rise in the mountain water course near Fort Stanton.

UTAH.

August, 1876.—On the 31st at Chalk Creek, 5 miles from Coalville, a cloud-burst was reported, and a solid bank of water, between 3 and 4 feet high, came down the stream, destroying dams.

July, 1883.—During the afternoon of the 29th a destructive flood occurred in the Kanab Cañon, in the southern part of the Territory. All of the wheat in the upper settlements was washed away, and a number of cattle were drowned. Many wagons and agricultural implements were lost.

March, 1884.—At North Fork the Central Pacific trains were delayed for two days previous to the 7th, owing to an overflow of the Humboldt River. The water in Bear River was higher than has been known since 1873. The river rose 7 feet in 24 hours, washing out all the bridges. Two bridges on the Waldo River were also washed away.

May, 1884.—The rivers throughout the Territory were much swollen during the month and the lowlands in the southern part of Salt Lake City were flooded. At Ogden several dams were swept away. Numerous washouts occurred on the Union Pacific. The Denver and Rio Grande Railroad was flooded, stopping all trains. The water in Great Salt Lake reached a greater height than has been known for many years. At Nephi, in Juab County, the railroad bridge over the forks of Salt Creek was washed away on the 9th.

June, 1884.—The lowlands of Salt Lake City continued flooded during the month. Dispatch of trains was impracticable on the Denver and Rio Grande Railway for 3 weeks.

August, 1885.—A cloud-burst occurred on a ridge of mountains about 3½ miles northwest of Frisco at 9 p. m., on the 22d. The water is reported to have rushed down the sides of the mountain with such force that large bowlders were displaced.

July, 1887.—On the evening of the 10th a flood devastated Fillmore and the surrounding country. The greatest damage was done in the mountains east of the place. Three saw-mills and half a herd of sheep were swept away.

August, 1889.—The rainfall was reported unusually heavy at Salt Lake City and surrounding districts, causing washouts on the Union Pacific and Utah Central Railroads. A land-slide, caused by a cloud-burst, wrecked a freight train at Weber Cañon.

From the foregoing list it appears that the excessive and damaging rainfalls, according to their order of greatest frequency, occur in the respective States and Territories as follows: California (southern part), Colorado, Arizona, New Mexico, Utah, and Nevada.

These destructive rainfalls in Colorado occurred without exception during the summer season, the 17 cases on record being distributed as follows: July, 6; August, 5; May, 4; June, 2. In Nevada the excessive rains have been confined, with one exception, to the summer months, the records being, August, 3; June, 2; December, 1. Utah is marked by a similar inclination, the 8 cases being distributed as follows: August, 3; July, 2; June, 1; May, 1; while March is the only cold month marked by a heavy rainfall. In New Mexico, of the 12 cases none occurred during a winter month; the distribution was as follows: August, 5; September, 2; June, 2; July, 1; April, 1; October, 1. California, on the contrary, has only 1 case of damaging rainfall during the summer months, that of August, 188?, near Daggett, in the Yuma desert; the 19 other cases were distributed as follows: January, 5; December, 3; February, 3;* October, 3; March, 2; April, 2; November, 1; the tendency being entirely towards heavy rains during the rainy period. The southern part of California only has been here considered, and these cases are connected with the unusual extension of rain conditions to the southern half of the State. Arizona, while sharing the tendency to summer rainfalls to a great extent in common with Colorado, Nevada, Utah, and New Mexico, yet has occasional cases of severe winter rainfalls. Fifteen instances are divided as follows: August, 5; September, 2; October, 2; July, 1; making 10 cases in the late summer and early autumn, against 3 in December and 1 each in February† and March.

It appears, then, from the records that the excessive rainfalls from which, as has been shown elsewhere, is derived about one-third of the whole rainfall of the arid region, occur very largely during the months of July and August, at a period too late, as a rule, for the economical utilization of such rain as storage of water for the staple crops of that season. Occurring, as these heavy rains do, during the late summer or very early autumn, the water can be utilized on a very large scale only for such crops and productions as can be planted, cultivated, and grown during the autumn and winter season; since, as is shown by data already quoted, of the water stored and held over until the following spring, an enormously disproportionate amount of it must have passed into the air by the steady and inevitable process of evaporation.

More than special interest attaches to the variation in the amount of rainfall from year to year. For instance, in Colorado the greatest amount of rainfall in any year ranges, as a rule and according to locality, from 110 to 150 per cent. of the average annual amount, and the minimum yearly rainfall varies from about 30 to 80 per cent. of the normal. In Utah the maximum yearly rainfall, generally, varies from 130 to 180 per cent. of the normal, while the minimum ranges from 35 to 70 per cent. In New Mexico the maximum generally amounts to from 125 to 150 per cent., though occasionally, at such widely-scattered stations as Forts Union and Craig, and Albuquerque, double the amount of yearly rainfall has been known. The minimum in this Territory varies from 40 to 80 per cent. of the average. In Arizona the maximum amounts for any year are generally between 130 and 200 per cent., the greatest departures from the annual average being at Fort Mojave, 240, and Fort Verde, 250 per cent. of the usual amount. The minimum rainfall averages generally from 45 to 75 per cent., but in one notable instance, Maricopa (record of 10 years), the amount in 1882 was only 8 per cent. In Nevada the maximum generally averages from 130 to 190 per cent., but at Fort McDermit the maximum rainfall is 330 per cent. of the yearly normal. The minimum for the State ranges from 40 to 60 per cent., according to locality. In California the maximum varies from 150 to 200 per cent., and in occasional localities in the southern part of the State ranges from 240 to 300 per cent. The minimum yearly amounts vary from 25 to 60 per cent., but at one place in the Mojave desert, at Indio (record of 14 years), in 1886 only 6 per cent. of the normal rainfall occurred. In short, the amount of rainfall which may occur over the arid regions in different years varies enormously. In Colorado, New Mexico, and Utah, the amounts in the years of greatest rainfall may be from two and one-half to three and one-half times as great as in the years of the least rainfall; in Arizona, from three to four times as great; in Nevada, from three to five times as great, and in California from four to six times as great, with even greater variations in particular localities.

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* The late damaging floods of February, 1891, only emphasize the tendency of destructive rains to occur almost entirely in California during the winter season.

† The very violent and damaging rains in southeastern Arizona in February of this year occurred only in that part of Arizona which has a rainfall régime in substantial accord with that of southern California.

The most important information pertinent to the question of irrigation is the annual rainfall for the regions affected. The following table shows the average annual precipitation in Arizona, California, Colorado, Nevada, New Mexico, and Utah:

Annual rainfall.

State.	Elevation.	Area in square miles.	Cubic miles of rainfall.	Average depth of rainfall in inches.
Arizona	Sea level to 3,000 feet	38,670	5.3	8.63
	3,000 to 5,000 feet	27,230	6.3	14.56
	5,000 feet and over	47,120	10.7	14.30
	Whole State	113,020	22.3	12.42
California	Sea level to 2,000 feet	82,290	27.9	21.64
	2,000 to 5,000 feet	53,530	18.2	21.66
	5,000 to 7,000 feet	17,334	7.5	27.56
	7,000 feet and over	6,246	2.7	27.75
	Whole State	159,400	56.3	22.56
Colorado	4,000 feet and less	8,773	1.5	11.15
	4,000 to 5,000 feet	18,031	3.2	11.78
	5,000 to 7,000 feet	31,314	6.1	12.74
	7,000 feet and over	45,885	9.2	13.12
	Whole State	104,500	20.0	12.61
Nevada	Less than 5,000 feet	39,759	5.0	7.98
	5,000 to 7,000 feet	57,654	10.7	11.85
	7,000 feet and over	14,590	2.9	12.92
	Whole State	112,000	18.6	10.64
New Mexico	4,000 feet and less	6,996	1.1	10.14
	4,000 to 5,000 feet	34,407	6.1	11.59
	5,000 to 7,000 feet	57,503	12.4	14.13
	7,000 feet and over	22,300	5.6	16.34
	Whole State	121,200	25.2	13.62
Utah	5,000 feet and less	28,615	4.0	9.00
	5,000 to 7,000 feet	35,444	6.5	11.59
	7,000 feet and over	20,441	3.2	6.97
	Whole State	84,500	13.7	10.32

These data indicate that irrigation enterprises in these States, for successful prosecution, demand the most careful and scientific study of climatic conditions, particularly of the amount and distribution of rainfall and the possible evaporation. When perfected, the storage reservoirs must be sufficiently extensive to tide over the temporary droughts, and sufficiently provided with waste-weirs to safely discharge extensive and torrential rainfalls; and must be protected by cover or otherwise against extensive evaporation, while the fall of the feeding canals must be such, and the water conducted therein must be sufficient in quantity, as to insure the speedy delivery of the water without great loss by leakage or evaporation.

Further examination of the detailed data will show that while for very large areas the amount of rainfall and its distribution is such as to insure a copious and quite constant precipitation available for purposes of irrigation, yet within 100 or 200 miles of this same area may be others where the rainfall is so irregular in its fall and distribution, and so deficient in its quantity, as to render most doubtful the economic success of irrigation enterprises. Likewise, contiguous to other climatic conditions favorable to irrigation, may be found rapid evaporation, the continued presence of very dry air, and also of quite high summer winds, all unfavorable to irrigation enterprises.

Not only has the average depth of rainfall in inches been calculated for each State, as a supplement to the charts herewith attached, but a similar calculation has been made as to the average depth of rainfall between different altitudes. While these results have a scientific interest

in showing clearly the increase of rainfall as a whole with elevation, yet they have a practical result in indicating to the investor the average gross amounts of water (that is, without loss by seepage, evaporation, or otherwise) in each State from which the irrigating supplies must be drawn. It is evident, for instance, that no more water can be available for land above 5,000 feet in Arizona, California, or elsewhere than actually falls above that level.

The amount of rainfall in cubic miles has been calculated for each State, and also between certain altitudes, the excellent map of the Geological Survey having been used for obtaining data whereby to calculate surface areas between different altitudes in the States named. From these combined data we learn, for instance, that in Utah 13.7 cubic miles of rainfall occur in average years; in Nevada, 18.6; in Colorado, 20; in Arizona, 22.3; in New Mexico, 25.2, and in California 56.3 cubic miles. It is not to be supposed, however, that this quantity of water, or even an approximate amount thereof, is available for irrigation in any particular year. A very large amount of water is lost through absorption by the earth, and a very large amount passes into the air by evaporation. Further, as has been pointed out elsewhere, the quantity of rainfall varies largely in different years, so that in Utah, for instance, the rainfall in one year may amount in the gross, to 6 or 7 cubic miles, while in another year it may reach 20 cubic miles. The amounts given, however, have an important practical bearing which will be readily comprehended by those having irrigation enterprises under consideration or in course of construction.

The elements of cloudiness and of sunshine bear both directly and indirectly on irrigation problems, the presence of sunshine being necessary in certain months of the year for the fruition of growing crops, and the presence of cloudiness also being essential, as during its presence evaporation proceeds in a much more modified degree. Chart No. 5 shows the sunshine and cloudiness—the percentage of sunshine being shown directly and the cloudiness being, of course, the complement of the percentage of sunshine. These curves are composite, being derived from observations of cloudiness at selected stations in the States and Territories referred to. It has been assumed—a reasonable assumption, in which no large error can obtain—that the complement of the cloudiness will be the sunshine.

It might naturally be assumed that the curve showing for each month the precipitation would, as rainfall is associated with cloudiness, follow in diametrically opposing phases the curve of prevailing sunshine. How far this is true it may be well to determine.

Taking the Pacific-coast region as a rule, the amount of sunshine bears a very close and direct relation to the absence of rainfall, the dryest months being those of July and August, and during the latter of these two months the maximum amount of possible sunshine occurs, except in lower interior California, where the greatest amount of sunshine comes—fortunately for the raisin districts—in September, which is even less marked by the presence of clouds than the very sunshiny months of July and August. In Arizona and New Mexico, however, where the percentage of precipitation is considerably larger in August than in any other month, it appears that the largest amount of unclouded sky obtains, not in that month, but in the month of July. However, the extremely sunshiny months of June and October are marked in New Mexico and eastern Arizona by a normal amount of monthly rainfall, the precipitation occurring in short, sharp showers. In Nevada the smallest percentage of rainfall occurs during July, during which period the amount of sunshine is somewhat less than for August or September.

Cloudiness is an important element, since the presence of clouds naturally results in screening the earth from excessive action of insolation, or, in other words, in diminishing the heat received by vegetation from the direct rays of the sun. It also, acting as a screen, prevents in part the radiation of heat from the earth into space, and thus materially tends to modify and reduce the diurnal range of temperature, so that growing vegetation is not subject to as great cold as would otherwise obtain during the night, nor, on the other hand, does it receive the full amount of solar heat by day. While the amount absorbed by a fully clouded sky is not accurately known, yet it must be so considerable as to form an important element in agriculture. On the other hand, the absence of clouds facilitates greatly the process of insolation by day and radiation by night, thus increasing the range of temperature to which vegetation must adjust itself daily. While the highest amount of insolation or the full heat of the direct rays of the sun—the amount for each

locality necessarily depending on the elevation, latitude, and mean temperature of the growing season for that locality—is absolutely essential to the complete fruition of many crops, yet the maximum amount of possible insolation in the arid region, when occurring during the summer period over very extensive areas of that region, proves destructive to most vegetation which is not watered by irrigating methods.

Representing the total cloudiness by 100 per cent. and absolutely clear sky by 0, it may be considered that those regions are practically cloudless over which the average amount of cloud is 20 per cent. or less, and that an excess of cloudiness obtains when the face of the sky is covered on the average 50 per cent. or more. On this basis it appears, as might be expected from what has been stated before regarding the distribution of rain throughout the year, that the different sections of the arid region had not an identical cloud régime, in other words, that the excess of cloudiness and the periods of complete sunshine do not occur over the whole arid region during the same months. An examination of the entire region west of the one hundredth meridian shows that cloudless days (an average of 20 per cent. or less) do not obtain over any part of this region during January, February, or March. In December the areas of cloudless regions are very limited, including only portions of extreme southeastern California and southwestern Arizona.

In April this area comprises within its limits the southern half of Arizona, the extreme southeastern part of California, and southwestern New Mexico.

During May and June the cloudless area of April is extended gradually to the north and southwest, so that in the latter month (June) the sky is practically cloudless over western New Mexico, Arizona, southwestern Utah, southwestern Nevada, and all of California except the extreme northern part and the immediate coast region of the latter State, say 20 miles inland.

During July, Utah, New Mexico, and Arizona, except a limited portion of the lower valley of the Colorado in the last-named Territory, are entirely removed from the cloudless belt, which now obtains over California, except the immediate coast region and western half of Nevada and southeastern Oregon.

During August this area is not changed, except that it includes the greater part of Idaho, all of northern Nevada, and extreme northwestern Utah. It may be stated that during July, August, and September, the period of nearly constant sunshine reaches its maximum over the interior valleys of California, during which time very large areas of clouds are comparatively rare.

In September the cloudless region includes California, except the immediate coast, southwestern Oregon and Nevada, as in the preceding months, and also extends southeastward so as to include southern Utah and all of Arizona, except the southeastern portion.

In October the only changes are the gradual movement southward and inland from the sea of the limiting lines in California and Nevada.

In November the area is diminished so that cloudless weather occurs only over southeastern California and the southwestern half of Arizona; which region is still further reduced during December and disappears, as before stated, in January.

Of course the climatic conditions of Colorado, Utah, northern Nevada, and the northern parts of Arizona and New Mexico are such as to preclude extensive and successful cultivation of crops during the autumn and winter months. The southern half of California and also the southern part of Arizona have, however, such conditions of temperature during the autumn and winter as are favorable to the planting and growth of crops during these seasons of the year; and fortunately, also, the heavy rains of California occur during the late autumn and early winter, which favorable condition extends to a much slighter degree over the southern part of Arizona.

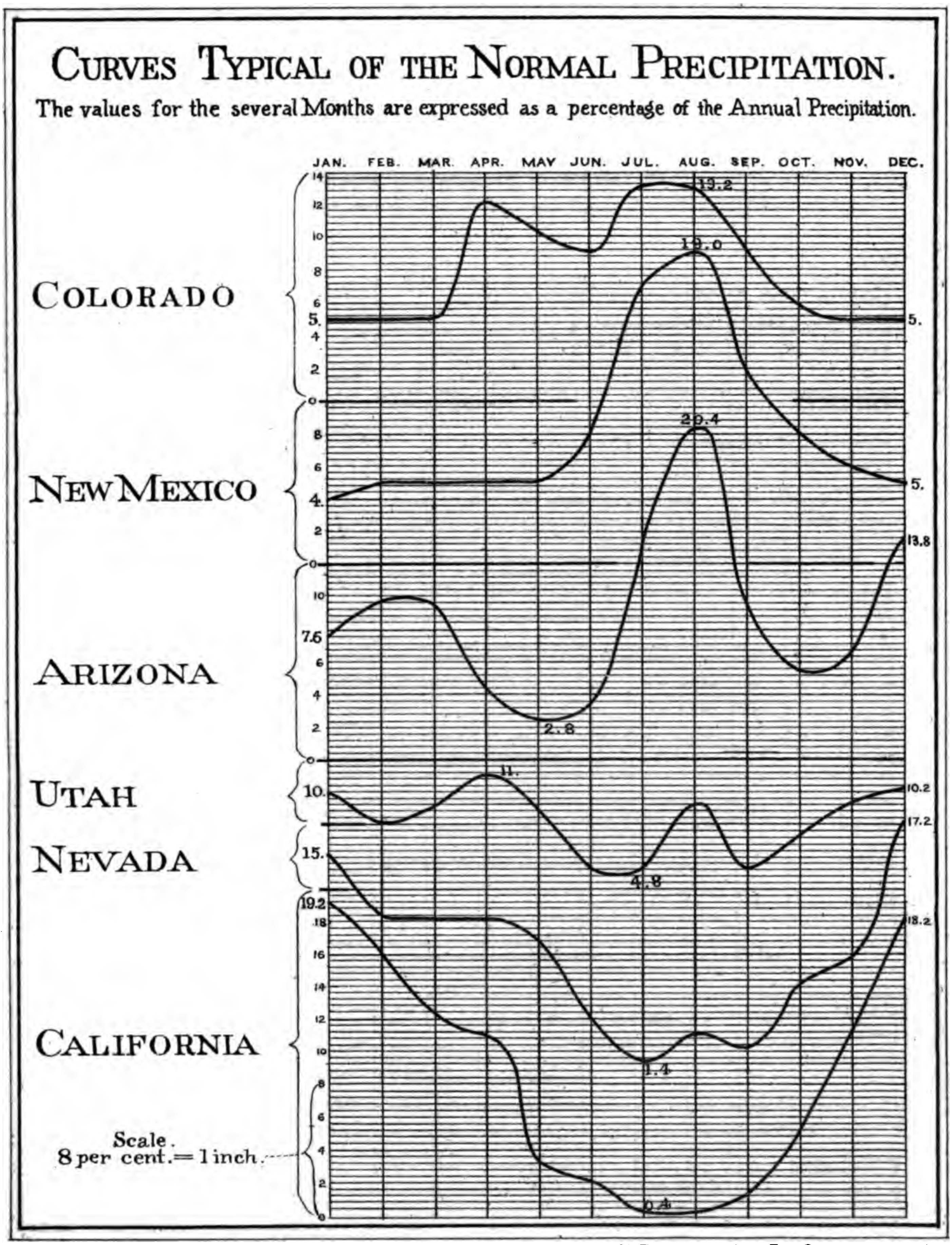
It is not part of the province of the Weather Bureau to dwell upon the question of storage of water by reservoir, but it is believed that it is expected that the Chief Signal Officer should set forth clearly such physical factors of the question as pertain to meteorology and climatology. What has already been said shows, however, that over very extensive sections of the arid regions the heavy rains from which must be derived waste water for irrigating purposes come at such a period of the year as to render it necessary to keep the water stored for a long time before it can be generally used for irrigating purposes; that such storage occurs in countries and under conditions where evaporation proceeds rapidly and to a degree almost unequaled in any other part of the world; and also, that the violent rainfalls are in such quantities and cover such an area of country

that the whole of these waters can not be stored; and that where storage facilities are provided they must be of most durable and solid construction, with such facilities for carrying off waste water as will render the recurrence of calamities similar to the great disaster on the Hassayampa River in Arizona practically impossible.

The Chief Signal Officer attaches to this report tables of precipitation and temperature which have been prepared under his personal direction, with reference to Arizona, California, New Mexico, Nevada, and Utah; together with certain charts intimately connected therewith. He further appends memoirs upon the climatic conditions with reference to irrigation, for Arizona, California, Nevada, and New Mexico, prepared by First Lieut. William A. Glassford, Signal Corps; which will further supplement the more general report of the Chief Signal Officer, and will further illustrate the tables and charts attached to the main report.

The effect of the wind in connection with evaporation has elsewhere been referred to. The velocity of the wind is also a factor not to be neglected in treating the question of storage of water for irrigating purposes. It furnishes an economical and effective motive power which has to some extent been utilized in the arid regions, but which in the coming years must prove to be a valuable agent in storing water, whether used in raising it, as possible, from the Missouri River to irrigate the plains of the Dakotas or in raising artesian water which has not sufficient head to bring it to the surface of the earth at the desired point. The average daily and hourly wind movement is given for five stations in Arizona in Appendix No. 10. The data for Phœnix are given as being the locality where the wind is perhaps the feeblest of any point in the arid regions. As a general rule it may be said that the average hourly velocity for the arid region diminishes from a maximum of 7 to 10 miles in the spring months to a minimum of 5 to 7 miles in the late summer and fall months.

APPENDIX No. I.



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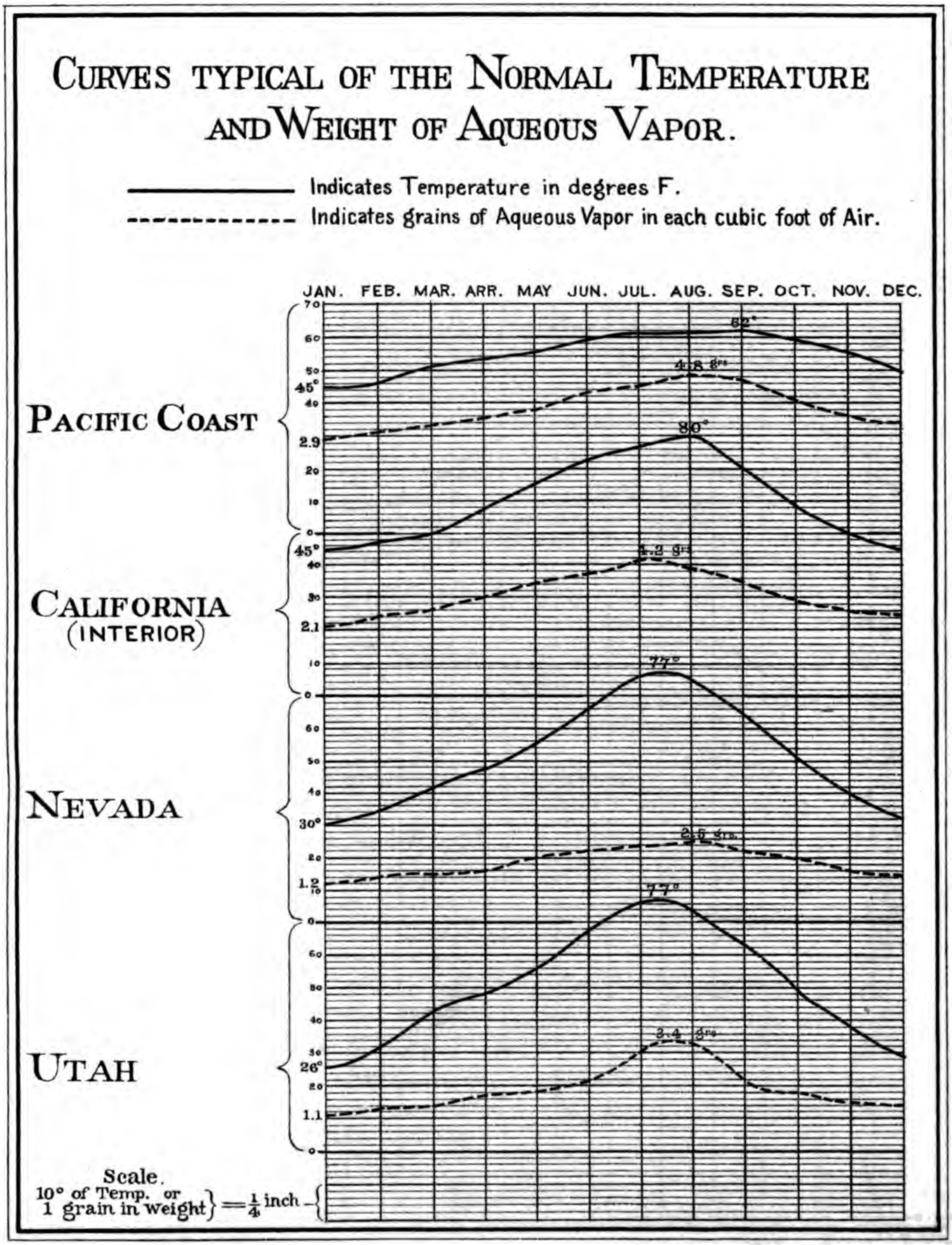
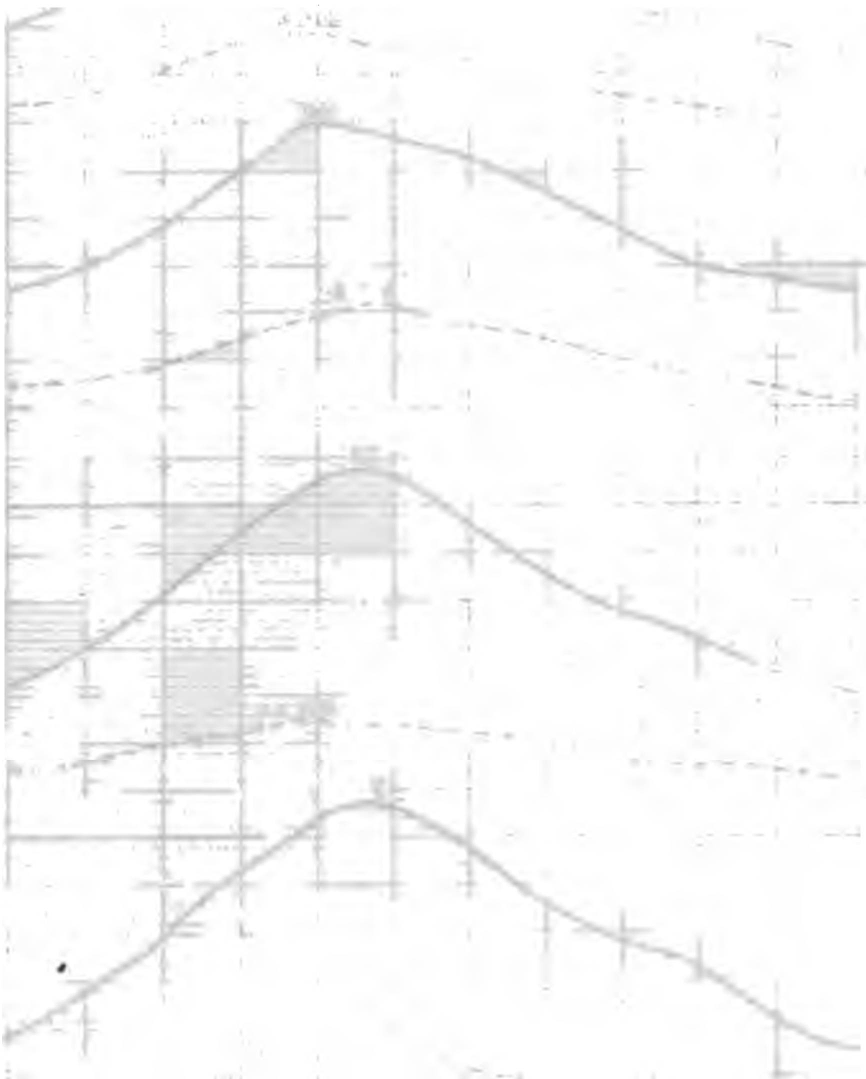
APPENDIX No. 2.



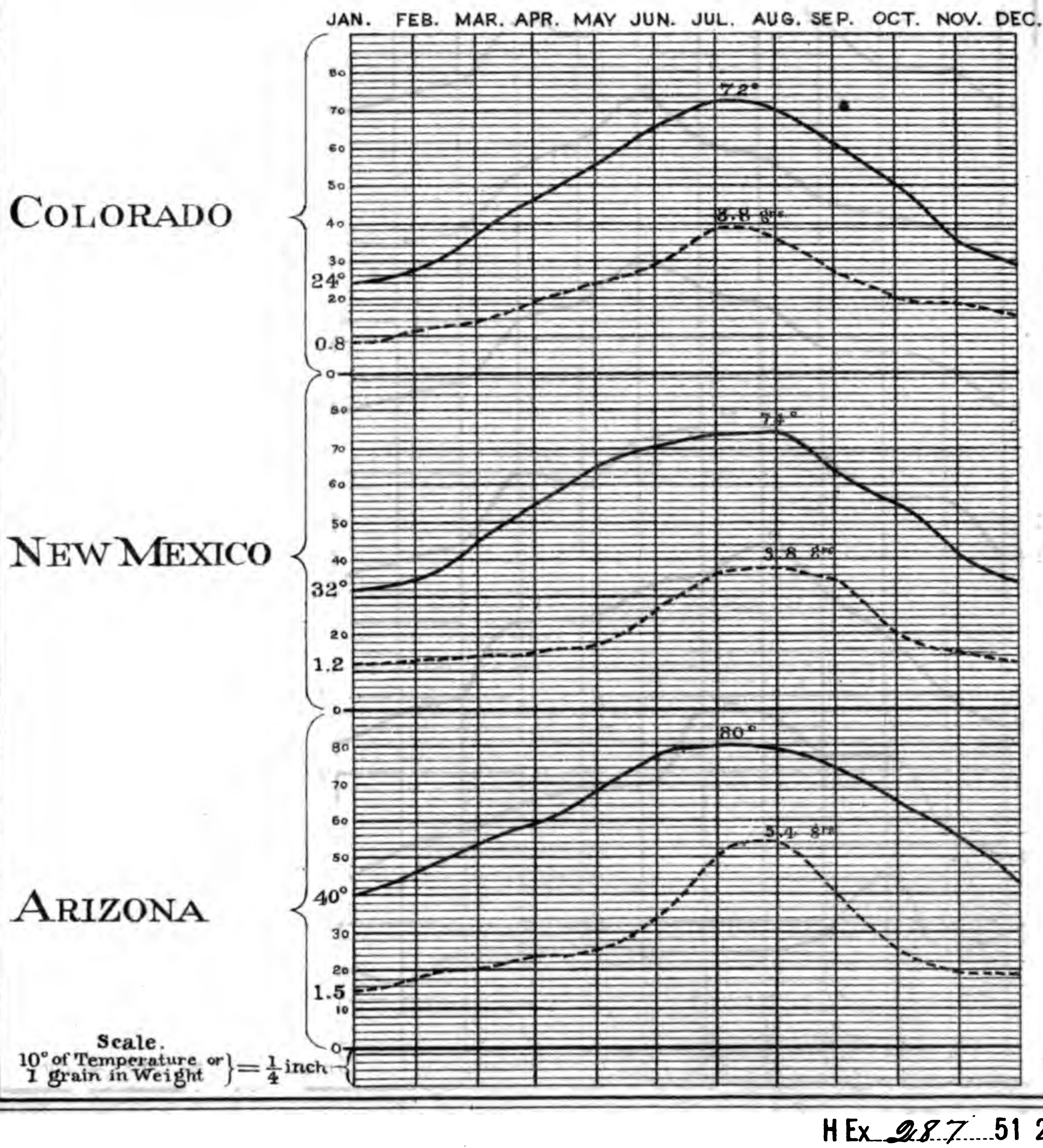


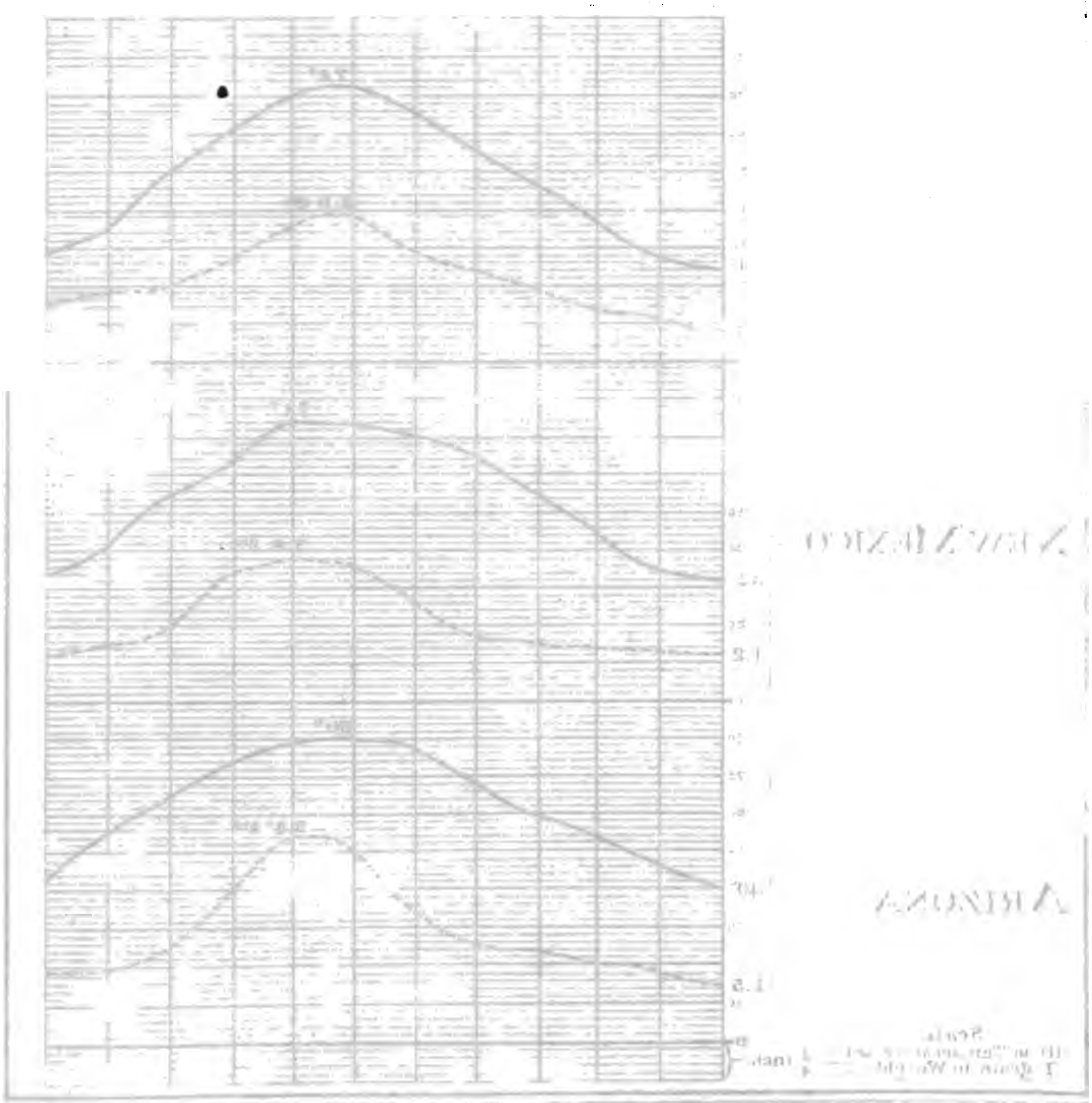
APPENDIX No. 3.

CURVES TYPICAL OF THE NORMAL TEMPERATURE AND WEIGHT OF AQUEOUS VAPOR.

——— Indicates Temperature in degrees F.

- - - - - Indicates grains of Aqueous Vapor in each cubic foot of Air.





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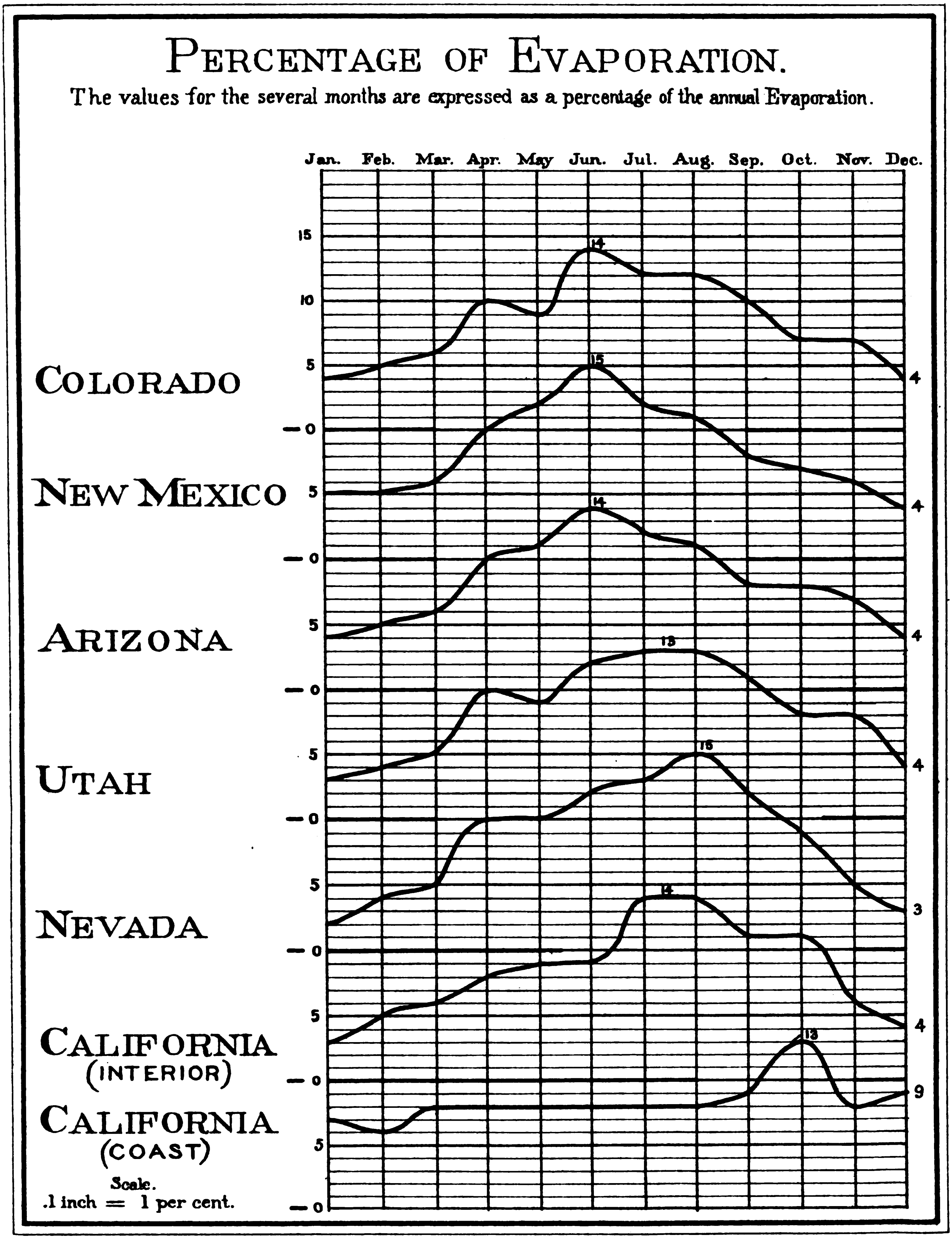

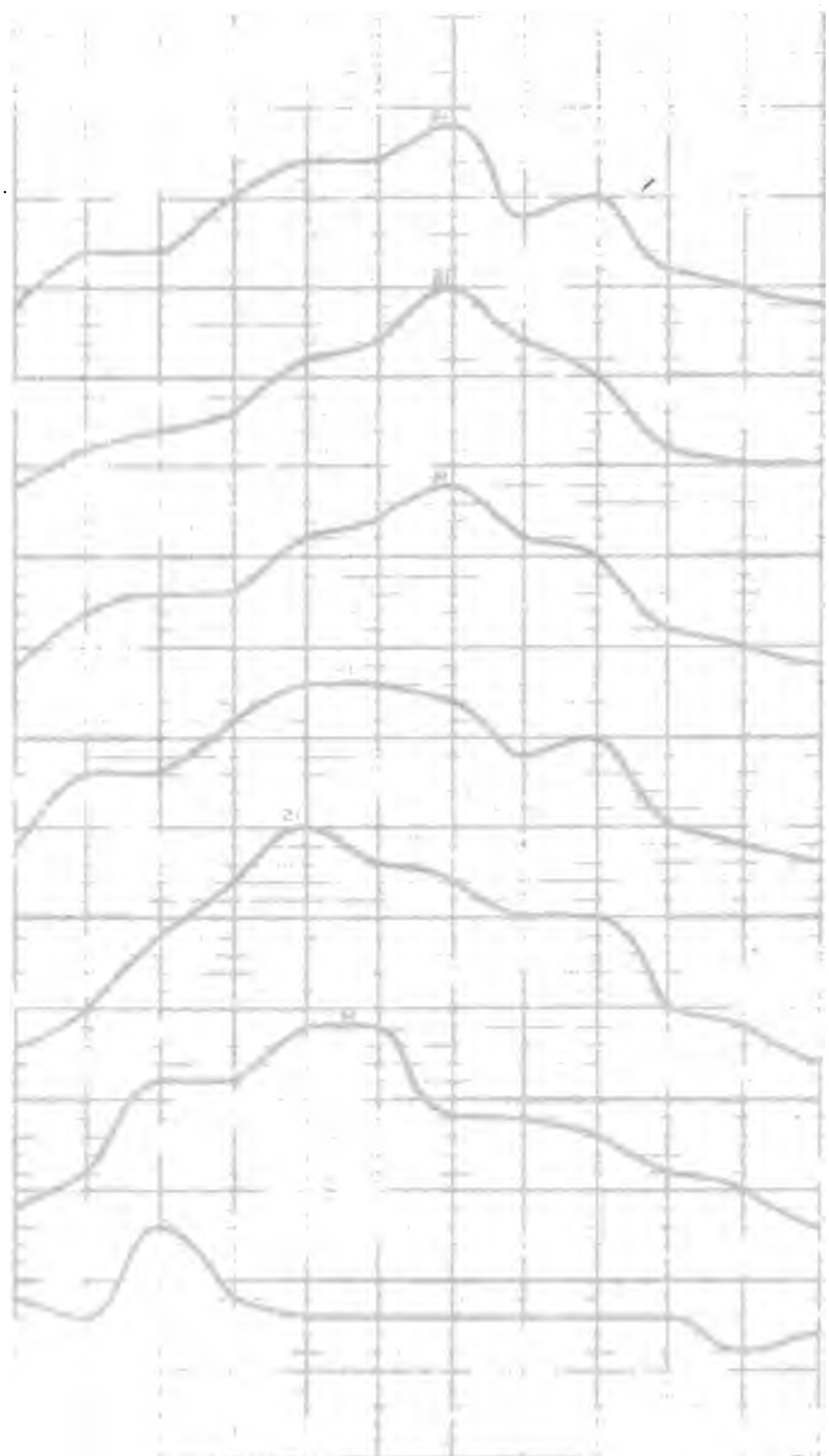

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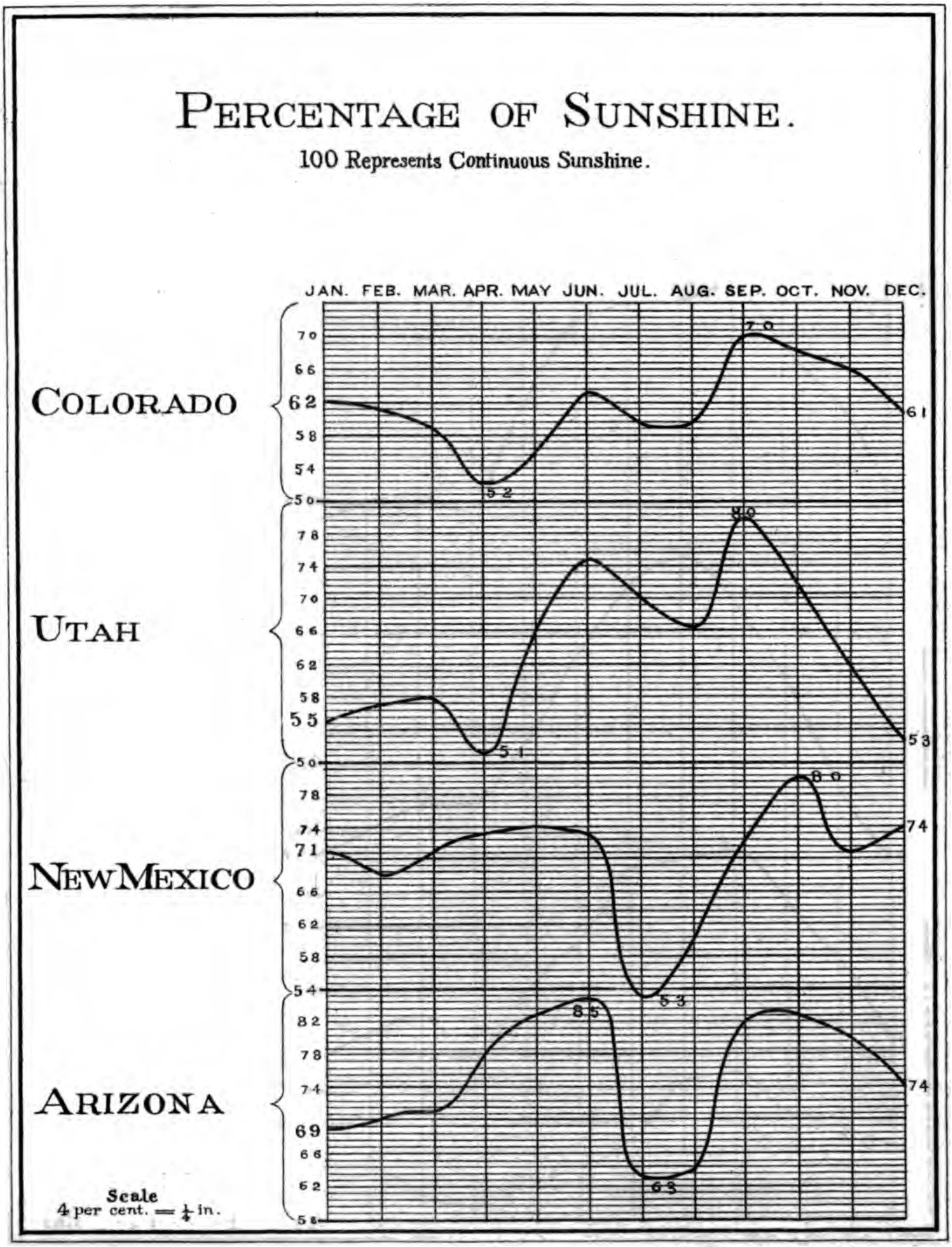
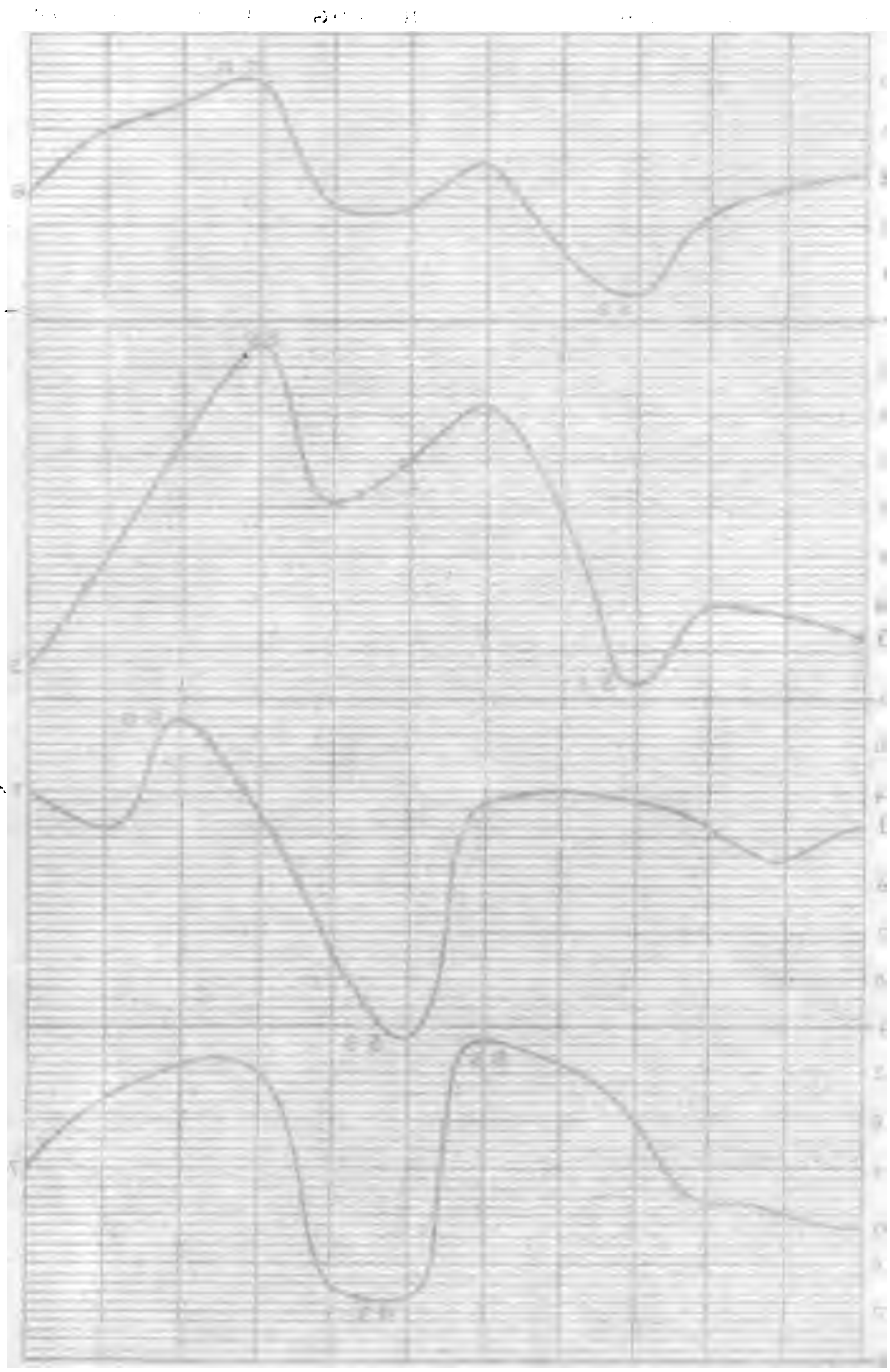
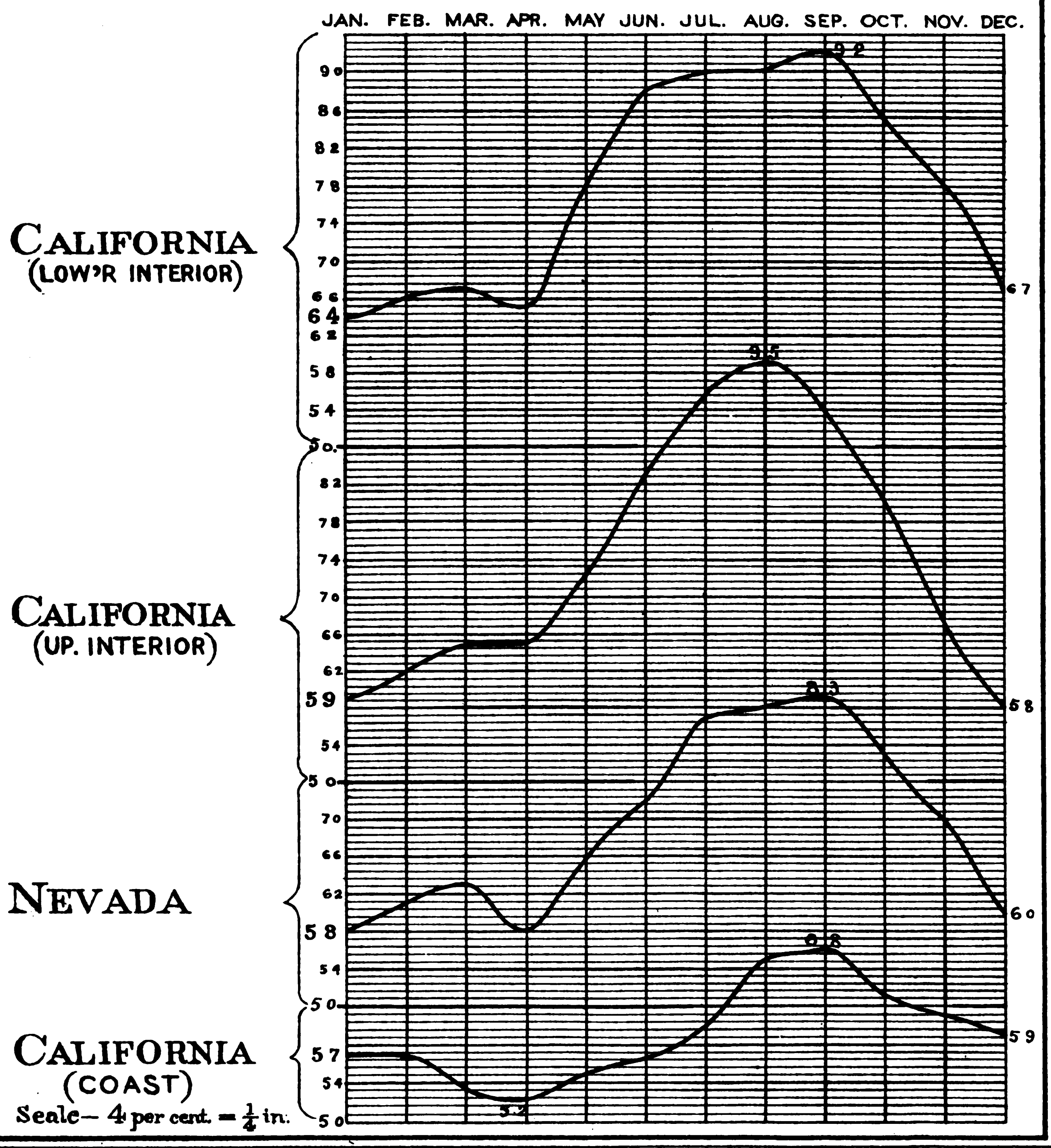




APPENDIX No. 6.

PERCENTAGE OF SUNSHINE.

100 Represents Continuous Sunshine.



Appendix No. 7.

LIST OF STATIONS IN ARIZONA FOR WHICH METEOROLOGICAL DATA ARE GIVEN.

The names of the stations have been arranged alphabetically under their several counties, commencing at the northwestern portion of the Territory.

Latitudes and longitudes, as given, are not in all cases astronomically correct. Those which have not been accurately determined by reliable surveys have been corrected by reference to the latest standard maps.

Elevations, likewise, are not always given with accuracy. All those in which any reason for doubt existed have been referred to the nearest datum point upon some trustworthy system of contours or determined elevation.

Broken records are indicated by an asterisk (*) in the column "Length of Record". The missing period may be ascertained by an inspection of the printed records as they appear in Appendices Nos. 8 and 9.

References: S. S., second order stations of the Signal Service; V. O., voluntary station; M. D., stations of the Medical Department of the Army reporting through the Surgeon-General; R. R., station of the Southern Pacific Railroad.

List of stations in Arizona for which meteorological data are given.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea-level.	Record.			T. or R. missing.	Authority.
					Length.	From—	To (inclusive)—		
	Mohave.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
V. O...	Chloride..........	....	....	4,201	0 10	July, 1889	May, 1890	......	H. P. Ewing.
V. O...	Fort Mohave.......	35 02	114 36	604	25 11	July, 1859	Sept., 1890	......	U. S. post hospital.
V. O...	Signal............	....	....	1,500	1 5	May, 1889	....do	......	William Koshland.
M. D..	Camp Beal's Spring	35 20	114 05	2,500	1 0	Apr., 1873	Mar., 1874	......	U. S. post hospital.
	Yavapai.								
M. D..	Camp Date Creek..	34 18	112 40	3,726	6 3*	May, 1867	July, 1873	......	U. S. post hospital.
M. D..	Camp Hualpai	35 10	113 50	5,322	3 2*	Jan., 1870	June, 1873	......	Do.
M. D..	Camp Willow Grove	35 10	113 50	4,170	1 7	Feb., 1868	Sept., 1869	......	Do.
S. S...	Prescott (Whipple Barracks).	34 33	112 28	5,389	23 11	Jan., 1865	Sept., 1890	......	U. S. post hospital and Signal Service.
V. O...	Williams	....	....	6,727	1 8	May, 1888	Jan., 1890	T.	J. T. Ryan.
V. O...	Flagstaff	....	....	6,862	1 5*	July, 1888	Mar., 1890	......	Bramen & Co., Mrs. F. B. Jacobs, and M. J. Riorden.
V. O...	Banghart's (Chino)	....	....	5,047	1 0*	....do	Aug., 1890	......	George Banghart.
V. O...	Cottonwood	....	....	4,170	0 8	July, 1889	Sept., 1890	T.	Thomas Carroll.
S. S ...	Fort Verde	34 32	111 47	3,160	22 0*	Nov., 1866	Sept., 1890	......	Signal Service and U. S. post hospital.
V. O...	Strawberry	....	....	5,400	1 3	May, 1889	....do	......	L. P. Nash.
V. O...	Antelope Valley....	34 18	112 42	4,500	1 8	July, 1888	July, 1890	T.	Mrs. J. H. Hamilton.
V. O...	Walnut Grove	....	....	....	1 3	May, 1889	Sept., 1890	T.	T. B. Carter.
V. O...	Payson	....	....	....	0 11	July, 1889	June, 1890	T.	Minnie Thompson.
V. O...	Tip Top	....	....	2,650	1 4	June, 1889	Sept., 1890	T.	F. E. Wager.
M. D..	Camp McPherson ..	34 45	112 18	3,726	3 8	May, 1867	Dec., 1870	......	U. S. post hospital.
V. O...	Ash Creek	....	....	....	1 1	Aug., 1889	Aug., 1890	T.	John H. Hudson.
	Apache.								
V. O...	Winslow	....	....	4,825	1 6	June, 1888	Dec., 1889	......	L. W. Roberts, Chas. J. Dillon, C. B. Yost.
V. O...	Holbrook	....	....	5,047	3 10	Dec., 1886	Sept., 1890	......	David Rope.
V. O...	Wood Canyon	....	....	....	10*	Sept., 1889	Sept., 1890	T.	T. D. Bridger.

* Record broken.

List of stations in Arizona for which meteorological data are given—Continued.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea-level.	Record.			T. or R. missing.	Authority.
					Length.	From—	To (inclusive—)		
	Apache—Cont'd.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
V. O	Show Low			6,000	1 2	Aug. 1889	Sept., 1890		George M. Adams.
V. O	Cooley's Spring			6,700	1 0	July, 1889	....do		C. E. Cooley.
S. S	Fort Apache	33 48	109 57	5,050	18 10	Nov., 1871	....do		Signal Service and U. S. post hospital.
V. O	Fort Defiance	35 43	109 10	6,500	9 2*	Dec., 1851	Nov., 1863		U. S. post hospital.
	Yuma.								
M. D	Camp Colorado	34 10	114 15		1 2	Jan., 1869	Feb., 1871		U. S. post hospital.
S. S	Stanwix	32 57	113 21	567	2 11	Nov., 1875	Nov., 1877		Signal Service.
S. S	Yuma	32 44	114 36	141	14 11	Oct., 1875	Sept., 1890		Do.
R. R	Texas Hill			355	11 0*	July, 1879	....do		Pacific Rwy. system.
	Maricopa.								
V. O	New River			1,500	1 1*	Mar., 1889	Sept., 1890		J. F. Singleton.
V. O	Peoria			1,000	1 1*	Jan., 1889	Jan., 1890		S. H. Campbell.
S. S	Fort McDowell	33 38	111 38	1,250	23 10*	Sept., 1866*	Sept., 1890		Signal Service and U. S. post hospital.
V. O	Buckeye				0 6	Aug., 1889	May, 1890	T.	B. W. E. Hurley.
S. S	Phœnix	33 28	112 00	1,068	12 9	Feb., 1876	....do		Signal Service.
S. S	Burkes	32 58	113 16		3 0	Dec., 1877	Nov., 1880		Do.
V. O	Gila Bend			735	1 3	July, 1889	Sept., 1890		Daniel Murphy.
S. S	Wickenburg	33 56	112 42	1,400	8 1*	Nov., 1875	Jan., 1886		Signal Service.
V. O	Arizona Canal Co's Dam (near McDowell).			1,150	1 1	Aug., 1889	Sept., 1890		Cortez Cox.
V. O	Tempe			1,100	0 9*	Oct., 1889	Oct., 1890		C. W. Miller.
	Gila.								
V. O	Globe	33 26	110 45		1 4*	July, 1888	Oct., 1889		J. H. Hamill.
M. D	Camp Reno	34 45	112 18	3,726	1 5*	Feb., 1868	Feb., 1870		U. S. post hospital.
S. S	San Carlos	33 12	110 27	3,456	9 3*	June, 1881	Sept., 1890		Signal Service.
	Pinal.								
M. D	Breckenridge (Old Camp Grant).	32 48	110 36	3,800	6 10*	Dec., 1860	Dec., 1872	R.	U. S. post hospital.
S. S	Maricopa	33 05	112 00	1,190	13 8	Nov., 1875	Sept., 1890		Signal Service and Pacific Rwy. system.
V. O	Silver King				0 9	July, 1889	Mar., 1890		T. S. Collins.
S. S	Florence	33 03	111 20	1,553	8 5	Nov., 1875	Sept., 1890		Signal Service, A. T. Colton.
R. R	Casa Grande			1,398	9 4*	Oct., 1880	....do		Pacific Rwy. system.
V. O	Dudleyville				1 2	July, 1889	....do	T.	G. F. Cook.
V. O	Red Rock			1,867	0 11	....do	June, 1890		W. A. Langham.
V. O	Willow Springs				1 5	May, 1888	Feb., 1890	T.	F. A. Chamberlain.
	Graham.								
S. S	Fort Thomas	33 04	109 51	2,700	10 6	April, 1880	Sept., 1890		Signal Service and U. S. post hospital.
M. D	Camp Goodwin	33 05	110 00	2,650	3 11*	Jan., 1866	May, 1870		U. S. post hospital.
V. O	Clifton (Oro)				0 10	Sept., 1889	June, 1890	T.	George W. Wells.
V. O	Cedar Springs			4,900	1 4*	May, 1888	Nov., 1889	T.	B. E. Norton.
V. O	Eagle Pass (Curtis)			4,800	2 0*	....do	Sept., 1890		Dr. R. B. Tripp.
S. S	Fort Grant	32 36	109 53	4,860	17 2*	Jan., 1873	....do		Signal Service and U. S. post hospital.
	Pima.								
V. O	American Flag				0 10	July, 1889	Apr., 1890	T.	I. H. Shields.
S. S	Fort Lowell	32 16	110 47	2,400	19 5*	Nov., 1866	Sept., 1890		Signal Service and U. S. post hospital.
M. D	Fort Buchanan	31 40	110 55	5,330	3 11	Aug., 1857	June, 1861		U. S. post hospital.
V. O	Calabasas				1 0	June, 1889	June, 1890	T.	E. K. Sykes.
V. O	Crittenden			4,172	0 8*	July, 1889	Sept., 1890	T.	E Vanderlip.
M. D	Camp Crittenden	31 34	110 39	2,000	4 10	Apr., 1868	Jan., 1873		U. S. post hospital.

* Record broken.

List of stations in Arizona for which meterological data are given—Continued.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea-level.	Record.			T. or R. missing.	Authority.
					Length.	From—	To (inclusive)—		
	Pima—Continued.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
V.O ..	Lochiel	......	......	......	1 11*	June, 1888	Sept., 1890	......	San Rafael Cattle Company, by Mrs. Cameron.
R.R ..	Pantano	31 47	110 41	3,538	9 9*	Oct., 1880	June, 1890	......	Pacific Rwy. system.
S.S ...	Tucson	32 14	110 54	2,404	14 10	Nov., 1875	Sept., 1890	......	Signal Service, Pacific Rwy. system, and E. L. Wetmore.
	Cochise.								
S.S ...	Willcox	32 20	109 42	4,164	9 9*	Oct., 1880	Sept., 1890	......	Signal Service and Pacific Rwy. system.
M.D ..	Camp Wallen	31 40	110 50	3,000	2 10*	Nov., 1866	Sept., 1869	......	U. S. post hospital.
V.O ..	Ash Canyon	31 23	110 12	......	1 2*	Aug., 1888	Sept., 1890	......	Jno. S. Robins.
V.O ..	Ash Spring	......	......	5,500	1 1	Sept., 1889	....do	T.	J. D. Kinnear.
R.R ..	Benson	32 00	110 22	3,580	9 10	Oct., 1880	....do	......	Pacific Rwy. system.
V.O ..	Bisbee	31 28	109 55	5,298	1 2	Aug., 1889	....do	T.	Rev. J. G. Pritchard.
S.S ...	Fort Bowie	32 12	109 20	4,781	23 2	Aug., 1867	....do	......	Signal Service and U. S. post hospital.
V.O ..	Dos Cabezas	......	......	5,450	0 10	Sept., 1889	....do	T.	T. C. Bain.
V.O ..	Dragoon	......	......	5,436	0 9	....do	....do	T.	Jno. W. Graham.
V.O ..	Fairbank (near)	......	......	3,850	1 3	July, 1889	Sept., 1890	......	E. W. Perkins.
M.D ..	Fort Huachuca	31 20	109 20	4,785	4 8	Jan., 1886	....do	......	U. S. post hospital.
V.O ..	Huachuca	31 25	110 10	5,000	2 0	June, 1888	....do	......	J. W. Stump.
R.R ..	San Simon	32 18	109 10	3,611	8 5*	Dec., 1881	....do	......	Pacific Rwy. system.
V.O ..	Teviston	......	......	3,846	2 4	June, 1888	....do	T.	Miss Belle Tevis and Miss Mary Tevis.
V.O ..	Tombstone	......	......	......	0 10*	Apr., 1889	....do	......	S. C. Bagg.
V.O ..	Chiricahua Mt's	......	......	7,400	1 0	Sept., 1889	Aug., 1800	T.	D. D. Ross.
V.O ..	Walnut Ranch	31 45	109 15	5,600	1 0	Nov., 1889	Oct., 1890	......	F. W. Heyne.

* Record broken.

Appendix No. 8.

MONTHLY AND ANNUAL PRECIPITATION AT SEVENTY-FOUR STATIONS IN ARIZONA.

Interpolated values are entered in brackets [ ]. As a rule interpolations have been made from the Monthly Weather Review Charts, which contain data from all available sources and thus afford facilities for a very close approximation to the actual conditions which existed during the interpolated periods.

Reference: Capital T indicates a trace of precipition. * Data following asterisk, inserted in the revise and were not available when charts were made and text written, nor are the means in the tables changed.

AMERICAN FLAG, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	0.44	3.16	3.15	0.50	0.80	0.28	....
1890	2.70	2.60	1.80	0.57	[0.00]	[0.00]	......	......	......	......	......	......	....
Means	......	......	......	......	......	......	......	......	......	......	......	......	16.00

ASH SPRINGS, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	1.25	0.63	0.15	1.13	....
1890	2.13	0.53	0.17	0.72	0.00	0.26	1.57	3.48	2.46	......	......	......	....
Means	......	......	......	......	......	......	......	......	......	......	......	......	12.62

ANTELOPE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	2.14	0.34	0.10	2.71	2.53	2.95	....
1889	1.93	0.64	3.14	0.00	0.00	0.00	1.67	2.29	[3.00]	2.35	0.13	5.86	[21.01]
1890	1.83	3.68	3.10	0.00	0.00	T	2.06	*7.80	0.00	2.02	2.70	4.34	27.53
Means	1.93	2.16	3.14	0.00	0.00	T	1.90	1.32	1.55	2.53	1.33	4.40	20.26

APACHE, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	0.92	1.72	2.02	0.08	0.26	1.02	5.20	2.52	2.00	2.44	1.34	0.22	19.74
1877	0.36	0.94	0.72	0.96	1.15	0.00	3.11	1.20	0.99	0.81	0.19	2.07	12.50
1878	0.18	1.35	2.41	1.77	0.18	0.79	8.76	9.33	0.76	0.00	1.94	1.14	28.61
1879	1.89	1.17	0.03	0.12	0.00	0.05	3.92	3.06	1.52	2.64	1.77	2.41	18.58
1880	1.31	0.95	0.80	0.46	0.00	0.46	5.83	1.44	0.55	0.56	0.03	2.38	14.77
1881	0.20	1.17	2.45	1.53	0.35	T	5.63	8.31	5.41	4.68	0.85	0.54	31.12
1882	2.82	2.85	1.09	0.91	0.94	3.27	4.79	7.36	1.02	T	2.34	0.23	27.62
1883	0.85	2.46	2.03	0.22	0.86	0.02	5.46	4.26	0.60	1.39	0.02	3.48	21.65
1884	0.68	3.43	4.44	1.67	1.31	2.35	0.14	5.59	1.50	2.02	0.82	5.52	29.47
1885	0.52	1.00	2.05	0.52	1.12	0.82	2.60	3.16	0.44	0.38	1.56	1.41	15.58
1886	3.90	2.73	1.06	0.91	0.00	0.19	1.90	4.75	3.16	1.66	0.56	0.24	21.06
1887	0.59	2.16	0.04	0.81	0.15	1.70	3.29	3.92	2.23	0.55	1.83	0.57	17.84
1888	1.42	1.83	2.92	0.71	0.71	T	3.24	[1.00]	0.32	1.23	2.63	2.88	[18.89]
1889	2.24	0.88	1.85	0.47	0.00	0.11	2.67	2.87	1.02	0.46	0.55	3.98	17.10
1890	2.26	2.40	0.82	1.39	0.00	0.00	5.00	4.44	2.37	*2.17	2.85	3.02	26.72
Means	1.34	1.80	1.65	0.84	0.47	0.72	4.04	4.20	1.54	1.34	1.17	1.93	21.04

Monthly and annual precipitation at seventy-four stations in Arizona—**Continued.**

ASH CAÑON, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888								3.47	1.07	1.03	4.50	3.60	
1889	1.80					0.26	4.42	0.20	4.35	2.30			
1890							4.48	5.79	2.04			*3.78	
Means							4.45	3.15	2.49	1.66			

ASH CREEK, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889								0.47	0.65	1.89	0.60	10.22	
1890	0.32	0.28	2.40	0.06	T	0.01	3.30	1.40					
Means								0.94					20.67

BANGHART'S (CHINO P. O.), ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888							1.60					3.02	
1889							5.50	2.40	0.40	0.90	[0.40]	4.35	
1890	[2.00]	1.00	6.50	2.50	0.00	0.00	[0.00]	3.90	*0.55	2.00	0.70		
Means							3.55	3.15				3.68	24.08

BENSON, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880										0.00	0.00	[1.50]	
1881	0.00	0.00	0.75	0.00	0.00	0.02	2.17	4.33	0.99	0.34	0.00	0.00	8.60
1882	0.40	1.20	0.00	0.00	0.00	0.86	2.00	3.58	0.65	0.00	0.80	0.15	9.64
1883	0.65	0.63	2.08	0.00	0.42	0.16	2.97	2.78	0.10	0.21	0.07	0.50	10.57
1884	0.20	0.63	1.20	T	0.00	0.00	0.70	0.27	0.30	2.89	T	2.50	8.69
1885	0.05	0.95	0.07	0.00	0.00	0.75	0.58	1.44	0.14	0.00	0.09	0.17	4.24
1886	0.79	0.67	0.08	0.00	0.00	0.00	1.44	2.68	0.17	0.25	0.00	0.19	6.27
1887	0.00	0.34	0.00	T	0.08	0.00	1.49	2.39	2.92	0.45	0.37	0.15	8.19
1888	0.04	0.00	0.30	0.00	0.37	0.00	2.44	1.66	0.05	0.84	1.11	1.03	7.84
1889	0.93	0.07	0.63	0.00	0.00	0.63	2.16	0.94	1.04	0.05	0.00	1.33	7.78
1890	1.94	0.00	0.00	0.23	0.00	0.52	[2.50]	4.81	1.44	*0.41	0.50	1.48	[13.83]
Means	0.50	0.45	0.51	0.02	0.09	0.29	1.77	2.23	0.71	0.50	0.24	0.75	8.06

BISBEE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889								0.73	3.79	0.38	0.20	0.27	
1890	2.34	0.27	0.24	0.15	0.00	0.03	6.07	5.71	1.73	*1.06	0.63	1.99	20.15
Means								3.22	2.76				15.36

BOWIE, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867								2.67	1.70	T	0.50	1.64	
1868	2.39	1.10	0.00	0.70	0.50	0.00	7.15	2.40	3.15	T	0.70	0.00	18.09
1869	0.10	3.50	0.39	0.15	0.00	0.40	1.30	5.60	0.20	T	1.45	0.15	13.24
1870	0.30	0.69	0.50	T	0.00	0.60	4.50	5.42	1.00	0.00	T	1.00	14.01
1871	0.50	[1.00]	[0.50]	[0.60]	0.18	0.60	7.90	2.30	1.00	0.70	0.90	Blk.	
1872	[0.40]	[0.50]	0.00	0.25	0.20	1.04	1.67	3.36	0.77	T	0.15	2.95	[11.29]
1873	0.00	1.16	2.22	T	1.09	0.14	0.50	1.34	0.01	0.03	1.12	2.02	9.63
1874	2.33	5.40	1.50	0.35	0.00	T	2.66	3.12	0.06	1.40	1.45	0.46	18.73
1875	1.35	1.20	0.13	0.13	T	0.65	4.22	1.77	3.19	0.00	0.25	0.83	13.72
1876	0.60	0.45	0.48	T	T	2.05	4.55	4.00	1.95	0.73	0.40	0.00	15.21

***Monthly and annual precipitation at seventy-four stations in Arizona*—Continued.**

BOWIE, FORT, ARIZ.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	0.14	2.70	0.12	0.14	0.90	0.00	1.24	0.18	1.16	0.00	0.00	2.04	8.62
1878	[0.50]	0.50	2.83	1.00	0.20	0.20	4.92	7.44	0.07	0.07	1.50	1.09	[20.32]
1879	3.00	0.63	0.40	0.02	0.00	0.00	1.01	0.20	2.00	0.60	0.10	0.50	8.46
1880	0.25	1.40	1.45	0.15	0.00	1.50	4.80	0.97	1.35	0.70	0.05	0.82	13.44
1881	0.00	0.20	0.79	0.05	0.10	0.06	5.53	5.16	2.27	1.15	0.58	0.03	15.92
1882	0.90	1.15	1.51	0.26	0.71	1.39	3.58	4.84	1.51	[0.00]	1.79	0.35	[17.99]
1883	1.49	1.33	2.84	0.00	1.50	0.33	2.21	1.73	0.72	0.20	0.39	1.12	13.86
1884	3.14	4.96	2.63	0.00	0.23	0.12	0.65	2.44	0.62	3.58	0.42	6.41	25.20
1885	0.53	1.81	2.19	0.00	0.19	0.66	1.83	2.19	0.44	0.00	1.42	1.74	13.00
1886	4.24	4.88	4.48	0.07	0.01	4.21	2.24	2.49	1.26	0.36	0.74	0.15	25.13
1887	0.13	2.11	0.00	0.23	T	1.30	4.49	5.51	2.71	1.01	1.10	1.94	20.53
1888	1.11	1.50	1.92	T	0.46	0.53	2.50	1.37	0.21	1.89	1.95	2.12	15.56
1889	1.38	1.62	1.58	T	0.09	0.09	2.65	0.20	3.37	0.74	T	0.51	12.23
1890	0.78	0.23	0.03	0.59	0.00	T	4.97	4.06	1.74	*1.60	0.61	2.45	17.13
Means	1.11	1.77	1.27	0.19	0.28	0.69	3.28	2.90	1.34	0.57	0.74	1.27	15.41

BUCHANAN, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1857	......	......	......	......	......	......	......	10.60	4.76	1.07	0.00	0.69	......
1858	1.97	0.51	0.29	1.46	0.00	0.48	3.21	3.50	1.32	0.60	0.16	2.58	16.08
1859	0.54	2.36	0.00	0.50	0.00	0.20	9.24	6.67	0.74	2.33	2.84	0.40	25.82
1860	2.35	2.92	0.49	0.44	0.00	0.65	3.30	3.89	1.29	0.64	1.36	0.93	18.26
1861	1.01	0.25	T	0.00	0.55	1.96	......	......	......	......	......	......	......
Means	1.47	1.51	0.20	0.60	0.14	0.82	5.25	6.16	2.03	1.16	1.09	1.15	21.58

BUCKEYE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	0.51	0.20	0.96	0.36	3.93	......
1890	......	......	1.70	......	......	......	......	......	......	......	......	......	
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

BURKES, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	......	......	0.22	......
1878	0.00	0.00	0.28	0.17	0.21	0.00	0.03	3.03	0.00	0.00	0.00	0.31	4.03
1879	0.00	1.03	0.26	0.00	0.00	0.00	T	0.82	1.03	0.05	1.22	0.11	4.52
1880	0.29	1.00	0.00	0.15	0.00	T	0.04	0.48	0.68	T	0.00	[0.50]	[3.14]
Means	0.10	0.68	0.18	0.11	0.07	T	0.02	1.44	0.57	0.02	0.41	0.28	3.88

BEAL'S SPRINGS, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	0.00	0.27	T	0.44	3.95	1.03	T	0.25	1.29	......
1874	0.50	2.50	0.25	......	......	......	......	......	......	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	10.48

ARIZONA CANAL COMPANY'S DAM, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	1.70	1.00	0.12	0.08	3.80	......
1890	0.10	0.11	0.71	0.40	0.00	0.00	[1.00]	1.80	0.21	*0.87	1.85	1.71	......
Means	......	......	......	......	......	......	......	1.75	0.60	......	......	......	8.67

Monthly and annual precipitation at seventy-four stations in Arizona—Continued.

CASA GRANDE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	......	......	......	......	......	......	......	......	......	0.05	0.00	[1.00]	......
1881	0.00	0.00	[1.00]	0.73	0.00	0.00	0.00	T	0.00	0.00	0.00	0.00	[1.73]
1882	[2.00]	[0.80]	0.00	0.00	0.00	[0.10]	0.00	0.00	0.00	0.00	......	0.00	......
1883	0.00	0.00	0.00	0.00	0.24	0.00	[1.00]	0.81	0.00	0.10	0.00	0.86	[3.01]
1884	0.75	[1.00]	1.08	0.00	0.60	0.00	0.00	2.37	0.00	1.31	0.00	3.20	[9.71]
1885	0.00	0.30	0.10	0.00	0.00	0.00	0.75	0.61	0.00	0.00	0.23	0.00	2.02
1886	0.90	[1.25]	0.74	0.09	0.00	0.00	0.33	1.46	0.00	0.00	0.35	0.00	[5.12]
1887	0.00	0.40	0.00	0.30	0.20	0.40	1.07	0.97	1.99	0.95	1.28	0.15	7.71
1888	0.61	0.00	0.45	0.00	[0.10]	0.00	0.28	0.00	0.41	†[1.00]	0.70	0.75	[4.30]
1889	[1.00]	0.00	0.50	0.10	0.00	0.00	0.00	0.00	0.50	0.80	0.10	1.25	[4.25]
1890	0.30	0.61	0.41	0.38	0.00	0.00	1.38	3.41	0.96	*0.38	2.00	0.87	10.70
Means	0.40	0.40	0.43	0.16	0.05	0.04	0.38	0.69	0.32	0.42	0.30	0.69	4.28

CALABASAS, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	0.13	3.40	2.48	2.51	[0.40]	0.00	0.83	......
1890	2.62	0.38	0.00	0.21	0.13	0.00	......	......	......	*0.10	0.50	1.95	......
Means	2.62	0.38	0.00	0.21	0.13	0.06	3.40	2.48	2.51	0.94	0.00	0.83	13.02

CHIRICAHUA MOUNTAINS, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	0.94	1.42	0.00	1.55	......
1890	3.80	0.00	0.00	0.89	5.00	0.00	1.18	3.83	*2.19	2.85	1.72	2.90	19.36
Means	......	......	......	......	......	......	......	......	......	......	......	......	13.61

CEDAR SPRINGS, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	0.30	T	0.69	0.17	0.62	[2.00]	2.55	2.50	......
1889	2.16	1.27	1.40	0.22	0.00	0.47	2.60	3.60	[2.00]	[1.00]	0.22	[1.50]	16.44
Means	......	......	......	......	0.15	0.24	1.64	1.88	1.31	1.50	1.38	2.00	15.15

COLORADO, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	T	0.21	0.50	0.15	0.00	T	0.00	0.30	0.00	0.10	1.00	0.20	2.46
1870	0.30	T	0.00	0.00	0.05	0.00	0.06	0.20	0.00	0.50	0.00	[0.70]	[1.81]
1871	T	T	......	......	......	......	......	......	......	......	......	......	......
Means	0.10	0.07	0.25	0.08	0.02	T	0.03	0.25	0.00	0.30	0.50	0.45	2.05

CHLORIDE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	0.14	1.00	0.60	0.85	0.19	7.53	......
1890	1.60	1.65	0.68	0.70	0.00	[0.00]	......	......	......	......	......	*2.27	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	14.94

COOLEY'S SPRINGS, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	2.74	2.95	1.46	0.12	2.85	4.20	......
1890	3.20	2.79	1.25	2.38	0.04	0.00	4.63	4.60	1.61	*5.78	......	......	......
Means	......	......	......	......	......	......	3.68	3.78	1.54	......	......	......	25.83

***Monthly and annual precipitation at seventy-four stations in Arizona*—Continued.**

COTTONWOOD, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	3.70	1.10	1.10	0.22	0.12	5.00	......
1890	1.90	3.90	......	......	......	......	......	......	3.80	*0.36	3.80	2.60	......
Means	1.90	3.90	......	......	......	......	2.85	1.80	2.45	0.22	0.12	5.00	......

CRITTENDEN, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	......	......	......	0.39	0.05	T	11.72	4.07	0.40	0.30	......	0.50	......
1869	1.10	2.50	0.95	T	0.00	0.16	4.74	5.35	1.55	0.46	1.01	1.26	19.08
1870	0.87	0.70	1.13	0.27	0.00	0.39	4.71	5.55	0.64	0.00	0.00	1.91	16.17
1871	0.33	0.98	0.52	0.35	0.20	0.34	5.70	4.55	1.18	0.05	0.11	0.40	14.71
1872	0.31	0.19	0.00	0.30	T	0.68	3.17	[4.00]	[0.50]	0.13	0.00	3.76	[13.04]
1873	0.12	......	......	......	......	......	......	......	......	......	......	......	......
Means	0.55	1.09	0.65	0.26	0.05	0.31	6.01	4.70	0.85	0.19	0.28	1.57	16.51

CRITTENDEN, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	2.17	2.32	1.70	0.30	0.00	......	......
1890	......	......	......	......	......	......	6.00	5.95	2.60	*1.42	......	......	......
Means	......	......	......	......	......	......	4.08	4.14	2.15	......	......	......	......

DATE CREEK, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	......	......	......	......	0.13	0.00	2.81	1.23	0.18	0.03	0.98	4.09	......
1868	3.12	2.27	1.55	1.40	0.63	0.00	7.24	8.30	0.93	0.70	0.75	0.95	27.84
1869	2.01	2.85	2.86	1.39	0.00	1.49	2.18	4.67	T	T	1.90	1.15	20.50
1870	0.29	0.70	1.06	[0.10]	T	T	5.70	3.12	0.00	1.50	0.23	1.00	13.70
1871	0.10	1.00	T	1.20	0.04	0.00	2.17	0.84	0.62	0.44	T	0.06	6.47
1872	T	0.80	T	2.05	0.00	0.07	1.86	4.55	0.00	0.07	0.00	1.15	10.55
1873	0.00	1.86	0.24	0.04	0.08	0.11	0.36	1.04	......	......	......	......	......
Means	0.92	1.58	0.95	1.03	0.13	0.24	3.19	3.39	0.29	0.46	0.64	1.40	14.22

DEFIANCE, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1852	......	......	......	......	0.89	2.35	0.90	1.30	1.82	1.60	1.22	1.30	......
1853	0.40	0.08	1.29	0.10	1.44	0.43	1.43	4.65	2.64	0.94	0.22	0.25	13.87
1854	2.20	0.15	0.45	0.93	1.51	1.24	3.94	5.24	3.47	0.62	1.49	1.20	22.44
1855	0.83	1.71	3.30	0.51	0.10	0.43	1.54	[2.74]	2.86	0.00	1.47	1.59	17.08
1856	0.82	1.54	0.54	0.78	0.33	0.10	2.14	3.07	1.75	0.00	0.18	0.40	11.65
1857	0.20	0.67	0.00	0.51	0.04	0.45	1.30	1.78	1.01	1.73	4.30	1.07	13.06
1858	0.54	0.54	0.59	1.64	0.00	0.27	2.22	3.32	0.95	0.28	0.28	1.34	11.97
1859	0.02	0.77	0.41	0.85	0.39	0.63	2.72	2.17	1.79	0.30	......	0.23	......
1860	2.86	0.12	0.13	0.02	0.00	[0.60]	5.77	0.30	0.49	0.80	0.15	0.46	11.70
Means	0.98	0.70	0.84	0.67	0.52	0.72	2.44	2.73	1.86	0.70	1.16	0.87	14.19

DOS CABEZAS, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	0.58	1.11	T	0.12	......
1890	1.28	0.29	0.08	0.95	0.00	0.03	3.90	5.07	1.36	*1.12	0.42	2.31	16.81
Means	......	......	......	......	......	......	......	......	0.97	......	......	......	13.80

DRAGOON, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	0.18	[0.75]	0.00	0.97	......
1890	2.11	0.43	0.00	0.32	0.00	0.00	4.09	4.73	2.48	*1.01	0.20	2.01	17.38
Means	......	......	......	......	......	......	......	......	1.33	......	......	......	14.73

Monthly and annual precipitation at seventy-four stations in Arizona—**Continued.**

DUDLEYVILLE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889							2.46	2.50	1.55	0.78	0.82	1.88	
1890	1.63	1.46	0.52	0.75	0.00	0.00	[2.00]	4.07	0.90	*0.84		1.67	
Means							2.23	3.28	1.22				14.57

EAGLE PASS (CURTIS), ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888					0.20						2.84	3.13	
1889	1.84	1.80	1.01	0.05	T	0.04	2.53	5.42	2.10	1.15	0.38	1.69	18.01
1890	3.03	0.51	0.80	0.79	0.00	T	3.15	4.70	1.76	*1.75	1.34	2.10	19 93
Means	2.44	1.16	0.90	0.42	0.07	0.02	2.84	5.06	1.93	1.15	1.61	2.41	20.01

FLAGSTAFF, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888							4.75	1.00	1.00	1.05	2.35	[7.00]	
1889				0.75	0.65	0.30	5.00	0.65	1.19	1.69	0.50	7.87	
1890	0.72	4.20	2.30										
Means							4.88	0.82	1.10	1.37	1.42	7.44	25.95

FLORENCE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875											0.02	0.64	
1876	1.08	0.00	0.10	T	0.00	0.07	4.53	1.24	0.26	1.26	0.79	0.00	9.33
1877	0.34	0.92	0.33	0.00	0.31	0.00	0.00	0.13	0.81	0.49	0.00	2.02	5.35
1878	0.06	1.03	1.09	1.55	T	0.00	0.21	3.58	2.75	0.00	1.37	1.85	13.49
1879	1.23	1.15	0.96	0.33	0.00	0.00	1.33	2.52	1.01	1.29	0.79	1.41	12.02
1880	0.76	0.49	0.21	0.20	0.00	0.05	1.22	0.54	0.55	0.13	0.00	1.20	5.35
1881	0.00	0.03	1.98	0.86	0.13	0.00	2.25	4.28	1.00	1.13	0.34	0.14	12.14
1882	2.28	1.11	0.23	0.68	0.00	0.00	1.83	1.89					
1889	1.26	0.84	2.83	0.13	0.00	0.00	0.00	0.53	0.34	0.44	0.47	2.06	8.90
1890	1.34	[1.00]	0.23	0.68	0.00	0.00	1.83	1.89	0.90	*0.41	2.36	2.96	
Means	0.93	0.70	0.80	0.49	0.05	0.02	1.36	1.83	0.96	0.68	0.47	1.16	9.45

GILA BEND, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889							0.36	1.03	0.00	1.50	0.00	2.80	
1890	0.00	0.40	0.00	0.00	0.00	0.00	1.40	3.90	0.00	*0.05	0.64	1.42	
Means							0.88	2.46	0.00				8.04

GILLETTE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889							*1.62	1.05	0.00	1.90	0.00	6.15	
1890	1.68												

GLOBE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888							2.47	1.38	0.65	2.39	3.61	2.18	
1889	2.15	1.11	2.33	0.43	0.00	0.38	1.36	1.19	5.90	1.94			
Means							1.92	1.28	3.28	2.16			

***Monthly and annual precipitation at seventy-four stations in Arizona*—Continued.**

GOODWIN, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	2.06	2.62	[1.03]	2.67	......	......	......	......	10.40	3.70	......	4.74	......
1867	7.55	1.55	1.87	0.00	0.00	0.00	3.47	3.73	1.30	0.85	2.40	5.20	27.92
1868	1.40	0.58	0.73	2.40	T	0.00	3.30	2.16	3.49	0.50	0.75	0.60	16.00
1869	0.85	2.30	1.55	0.38	0.00	2.08	3.20	11.45	0.02	0.51	0.40	0.71	23.33
1870	0.20	2.17	0.02	1.05	0.00	......	......	......	......	......	......	......	......
Means	2.41	1.82	1.04	1.10	T	0.69	3.35	5.78	3.80	1.39	1.18	2.81	25.57

OLD CAMP GRANT (BRECKENRIDGE), ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	......	......	......	......	......	......	......	......	3.10	0.00	3.33	0.33	......
1867	1.90	1.00	0.50	T	T	T	......	......	......	0.00	......	......	......
1868	......	......	......	2.10	0.00	0.00	3.35	1.30	4.65	0.00	......	......	......
1869	1.36	0.76	0.68	......	T	0.14	1.73	1.62	0.00	0.05	0.54	0.56	......
1870	0.19	0.54	0.66	0.12	0.00	0.05	2.32	2.98	0.09	0.00	0.10	1.90	8.95
1871	0.06	1.20	0.40	3.11	0.20	1.90	11.70	10.28	2.76	0.10	2.00	1.50	35.21
1872	1.50	0.30	0.00	0.70	0.40	0.90	4.10	4.20	1.10	0.30	T	1.18	14.68
Means	1.00	0.76	0.45	1.21	0.10	0.50	4.64	4.08	1.95	0.06	1.19	1.09	17.03

GRANT, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	0.00	0.10	1.00	0.00	0.50	1.40	1.70	5.20	2.50	0.46	3.38	1.75	17.99
1874	1.58	2.87	2.45	0.58	0.07	0.00	2.70	2.01	0.00	1.47	0.30	3.78	17.81
1875	2.48	1.44	1.95	1.52	0.00	0.50	7.02	1.08	4.59	0.01	0.20	0.12	20.91
1876	0.26	0.24	0.44	......	......	0.65	5.27	7.41	1.99	2.86	1.00	......	......
1877	0.17	1.50	0.30	0.42	0.66	0.00	0.94	0.60	2.88	0.50	0.00	2.16	10.13
1878	0.23	0.50	0.37	0.18	0.00	0.32	6.44	4.93	0.20	0.00	1.90	1.39	16.46
1879	1.38	0.47	0.85	0.07	0.00	0.03	2.59	1.12	2.18	1.83	0.87	1.38	12.82
1880	0.60	0.45	0.85	0.08	0.00	1.32	5.63	3.73	1.01	0.47	0.00	1.57	15.74
1881	0.05	0.33	0.89	0.84	0.26	T	5.53	5.47	3.84	1.02	0.08	0.65	18.96
1882	0.86	1.26	1.84	0.07	0.81	1.47	2.62	4.73	0.80	0.00	0.79	0.17	15.42
1883	1.21	1.40	1.27	0.03	1.16	1.26	2.90	3.07	0.42	1.21	0.11	1.44	15.48
1884	1.12	4.62	3.87	0.47	0.81	1.20	0.67	2.41	0.98	3.06	0.53	5.93	25.67
1885	0.31	1.02	1.40	0.04	0.25	0.73	0.93	1.58	0.81	0.03	1.30	0.81	9.21
1886	2.46	1.29	0.53	0.30	0.04	No record.		3.40	3.49	0.57	0.10	0.09	......
1887	0.11	2.58	T	0.36	0.16	0.85	9.00	6.20	4.20	0.37	0.28	0.21	24.32
1888	0.12	0.44	0.83	0.50	0.18	0.02	4.27	0.52	0.78	1.19	3.67	1.68	11.20
1889	1.99	1.28	1.04	0.13	T	1.06	3.57	1.35	0.69	0.94	0.16	1.11	13.32
1890	1.58	0.46	0.46	0.92	0.01	0.20	3.23	4.54	0.69	*1.62	0.16	2.01	15.88
Means	0.92	1.24	1.13	0.38	0.29	0.65	3.86	3.22	1.84	0.94	0.86	1.52	16.85

GRAND CENTRAL MILL (NEAR FAIRBANK), ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	5.19	2.57	1.07	0.14	0.00	0.35	......
1890	1.65	0.00	0.00	0.15	0.00	0.15	2.74	6.48	3.12	*0.90	0.28	1.01	16.48
Means	......	......	......	......	......	......	3.96	4.52	2.10	......	......	......	13.02

HOLBROOK, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	......	0.27	......
1887	0.10	1.11	0.06	0.82	0.27	0.24	1.98	1.11	1.88	1.05	0.54	0.40	9.56
1888	1.00	1.18	1.24	0.76	0.29	0.05	0.68	0.74	0.87	0.50	2.20	1.31	10.82
1889	0.30	0.29	0.82	0.10	0.09	0.20	2.06	1.20	0.67	0.49	0.50	0.91	7.63
1890	0.77	0.25	0.75	1.01	0.00	0.00	1.32	2.57	1.32	*0.62	2.08	1.82	12.34
Means	0.54	0.71	0.72	0.67	0.16	0.12	*1.51	1.40	1.18	0.68	1.08	0.72	9.29

Monthly and annual precipitation at seventy-four stations in Arizona—Continued.

HUACHUCA, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	1.18	1.94	0.20	T	0.00	0.00	1.41	4.24	1.46	0.84	T	0.20	11.47
1887	0.00	1.30	0.00	0.00	0.00	0.72	4.08	2.00	3.48	0.74	1.16	1.80	[15.28]
1888	0.10	0.30	0.96	0.00	0.60	1.06	7.96	2.05	0.96	2.12	2.78	1.05	19.95
1889	1.90	1.55	2.71	0.22	0.00	0.16	3.66	1.80	2.46	0.04	0.14	0.75	15.39
1890	1.50	0.10	T	0.34	[0.00]	T	4.38	4.49	4.68	*0.37	1.04	2.70	19.60
Means	0.80	1.27	0.97	0.11	0.15	0.39	4.29	2.92	2.61	0.94	1.02	0.95	16.42

HUALPAI, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	0.07	1.18	0.10	4.91	4.85	[0.60]	1.10	0.35	0.70	......
1871	0.00	0.40	0.00	1.97	0.10	0.10	[4.00]	2.80	4.10	0.60	0.00	0.20	[14.27]
1872	0.10	0.70	0.00	1.20	0.20	3.60	2.30	6.40	2.20	0.30	0.50	1.70	19.20
1873	0.10	4.65	0.00	[0.10]	0.40	0.13	......	......	......	......	......	......	......
Means	0.07	1.92	0.00	0.84	0.47	0.98	3.74	4.68	2.10	0.67	0.28	0.87	16.62

HUACHUCA MOUNTAIN (NEAR BASE, SOUTH SIDE), ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	0.76	4.45	2.41	0.50	0.49	3.46	1.42	......
1889	2.37	0.34	2.61	0.14	T	0.55	5.44	0.54	3.04	0.63	T	0.21	15.87
1890	2.51	0.16	0.03	0.32	0.00	0.00	3.33	4.46	2.25	*0.69	1.37	......	......
Means	2.44	0.25	1.32	0.23	T	0.44	4.41	2.47	1.93	0.56	1.73	0.82	16.60

LOCHIEL, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	1.00	8.03	0.40	3.10	1.00	2.00	1.60	......
1889	1.90	......	1.91	[0.10]	[0.00]	1.55	3.77	1.67	2.17	0.55	0.00	0.65	......
1890	3.06	0.43	0.02	[0.20]	[1.07]	0.10	4.87	7.18	4.53	*0.88	1.11	3.45	......
Means	2.48	0.43	0.96	0.10	0.00	0.88	5.90	1.04	2.64	0.78	1.00	1.12	17.43

LOWELL, FORT (TUCSON), ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	......	......	......	......	0.00	0.00	2.90	1.40	0.60	T	......	1.70	......
1868	0.57	0.57	0.30	1.09	1.00	0.00	3.34	0.67	3.83	0.25	0.32	0.50	12.44
1869	1.09	1.58	0.70	T	0.00	0.35	2.49	6.31	0.30	0.03	1.01	0.83	14.69
1870	0.02	0.20	0.03	0.16	0.00	T	2.82	2.04	T	0.00	0.00	0.94	6.21
1871	0.52	0.64	0.16	0.04	T	0.40	1.02	3.70	2.00	T	0.21	1.00	9.69
1872	0.54	0.12	0.00	0.05	0.01	0.26	3.94	3.81	3.06	0.40	0.00	1.39	13.58
1873	0.00	0.69	1.01	0.00	T	0.00	0.08	2.73	0.62	0.00	1.32	0.97	7.42
1874	1.76	1.66	1.19	0.43	0.07	0.00	4.82	1.93	0.00	1.08	0.92	0.37	14.23
1875	0.37	1.22	0.00	0.09	0.00	0.20	4.22	2.09	2.39	0.00	0.05	0.53	11.16
1876	0.21	0.27	1.14	T	T	2.05	4.83	2.70	1.95	2.65	0.25	T	16.05
1877	0.95	1.45	0.12	0.88	0.42	0.00	0.86	0.34	1.76	0.68	0.00	2.38	9.84
1878	0.12	1.12	1.06	0.48	0.00	0.16	0.60	7.88	0.14	0.00	2.30	0.52	14.38
1879	1.54	2.56	0.18	0.00	0.00	0.00	2.50	1.26	1.12	0.80	0.72	0.70	11.38
1880	0.62	0.00	0.64	0.16	0.00	0.20	1.88	3.64	0.38	0.12	0.00	1.06	8.70
1881	0.20	0.12	0.94	0.67	0.09	0.00	3.62	......	2.04	1.26	0.00	0.30	......
1882	2.30	1.90	0.94	0.30	0.32	1.54	1.18	3.60	0.38	0.00	1.48	0.12	14.06
1883	3.02	1.20	1.06	0.00	......	......	......	......	......	0.78	0.48	3.18	......
1884	4.74	5.23	2.90	0.08	......	......	......	......	......	......	......	......	......
1886	......	......	1.12	0.14	0.00	0.00	T	1.24	1.04	0.12	0.12	0.10	......
1887	0.00	......	......	......	......	......	......	......	......	......	......	......	......
1889	2.09	0.76	2.46	0.30	0.00	0.45	3.36	2.07	3.32	0.31	0.19	1.58	16.92
1890	2.09	0.55	0.74	0.75	0.00	0.00	6.47	5.58	0.97	*0.77	0.83	1.48	20.33
Means	1.14	1.15	0.83	0.28	0.10	0.30	2.47	2.79	1.38	0.45	0.52	0.96	12.37

Monthly and annual precipitation at seventy-four stations in Arizona—Continued.

MARICOPA, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	......	0.00	0.00	......
1876	0.72	0.27	0.39	0.00	0.00	0.45	0.44	1.09	0.00	0.10	0.41	0.00	3.87
1877	0.08	1.57	0.30	0.03	0.41	0.00	1.26	0.00	1.07	0.00	0.01	1.54	6.27
1878	0.00	1.01	......	......	......	......	......	......	......	......	......	......	......
1879	......	......			......	0.00	0.10	1.81	0.38	0.04	0.85	0.80	......
1880	1.45	0.16	0.00	0.75	0.00	0.00	0.00	0.00	.50	0.00	0.00	0.50	3.36
1881	0.00	0.00	0.88	0.00	0.00	0.00	0.00	1.47	0.50	0.00	0.00	0.00	2.85
1882	T	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.38
1883	1.34	0.00	0.00	0.00	0.00	0.00	0.50	3.57	0.30	0.00	0.00	1.96	7.67
1884	0.38	0.74	2.83	0.51	0.01	0.32	0.53	0.86	1.10	1.51	0.20	2.97	11.96
1885	0.00	0.45	0.15	0.00	0.18	0.04	0.48	0.92	T	0.00	0.56	0.19	2.97
1886	1.32	1.65	1.71	0.06	0.00	0.00	*0.16	0.08	0.06	0.76	0.21	0.11	6.12
1887	0.00	0.17	T	0.51	0.31	0.03	0.43	0.50	1.00	0.28	1.13	0.00	4.36
1888	0.00	0.12	0.48	0.00	0.00	0.00	0.80	0.22	0.35	0.52	0.75	0.70	3.94
1889	0.85	0.15	1.19	0.00	0.00	0.00	0.55	0.90	0.90	1.20	0.83	3.00	9.57
1890	0.00	0.22	1.02	0.00	0.00	0.00	0.10	4.29	0.15	*0.07	0.31	2.47	8.63
Means	0.44	0.46	0.69	0.14	0.07	0.06	0.40	0.91	0.47	0.34	0.35	0.84	5.17

* Incomplete.

McDOWELL, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	......	......	......	......	......	......	......	......	1.63	0.25	0.06	0.10	......
1867	0.88	0.16	2.11	0.03	0.00	0.00	2.97	1.18	1.62	0.03	0.29	5.70	14.97
1868	2.70	1.60	0.70	[1.00]	0.00	0.00	4.50	1.70	3.01	T	0.01	0.00	[15.22]
1869	0.64	2.60	0.00	0.15	T	0.10	0.40	1.10	0.00	0.00	2.15	0.55	7.69
1870	T	0.60	0.65	T	T	0.70	0.90	1.98	0.22	0.40	0.00	T	5.45
1871	0.25	0.40	0.00	0.40	T	T	0.16	2.08	0.20	0.00	1.25	0.20	4.94
1872	0.50	0.40	0.00	0.53	0.30	0.31	9.16	7.17	0.08	T	0.00	1.56	10.01
1873	0.00	1.60	0.90	0.10	0.16	T	T	0.56	0.00	T	0.21	4.70	8.13
1874	3.10	2.86	1.03	1.30	0.30	0.00	1.31	1.99	0.05	1.11	2.76	1.00	16.84
1875	1.40	0.62	T	0.10	T	0.00	0.75	0.46	1.00	0.00	0.00	0.64	4.97
1876	0.70	0.10	0.40	T	0.00	1.00	3.25	1.70	0.00	T	0.58	0.00	7.73
1877	1.08	2.24	0.44	0.50	1.04	0.00	T	0.06	1.52	0.38	T	2.12	9.38
1878	0.04	1.54	1.18	3.20	T	T	0.86	1.57	0.98	0.00	0.99	1.56	11.92
1879	0.50	1.22	0.60	0.20	0.00	0.00	T	0.12	0.34	0.58	2.14	2.64	8.34
1880	1.56	0.38	0.50	0.38	0.00	T	0.52	0.84	0.34	[0.40]	0.00	1.69	6.61
1881	T	T	1.46	0.22	0.12	0.00	1.16	3.38	0.10	T	0.80	T	7.24
1882	3.22	0.58	0.00	T	0.10	0.56	0.40	1.52	1.34	0.00	1.38	0.00	9.10
1883	0.59	0.78	0.42	0.00	0.28	0.04	1.12	1.76	0.32	0.30	0.06	4.22	9.89
1884	0.33	4.37	3.47	0.58	0.45	0.09	0.08	1.25	3.96	1.38	0.45	4.54	20.95
1885	0.00	2.50	0.60	0.00	0.00	0.00	0.00	0.90	0.90	0.40	1.75	1.25	8.30
1886	3.35	1.60	1.50	T	0.00	[0.00]	0.00	0.62	T	0.27	0.44	0.30	[8.08]
1887	0.00	0.86	0.00	0.68	T	0.00	0.06	1.54	4.11	0.48	1.82	0.77	10.32
1888	0.87	0.72	0.62	0.14	0.40	0.00	0.86	0.17	0.35	2.82	1.49	3.47	11.91
1889	2.85	0.77	0.14	0.09	0.00	0.06	0.62	0.29	0.61	1.31	0.73	5.31	12.78
1890	0.89	1.37	0.96	0.55	0.00	0.00	1.10	1.55	0.26	*1.07	......	......	......
Means	1.06	1.24	0.74	0.42	0.13	0.12	1.26	1.48	0.94	0.42	0.81	1.76	10.38

McPHERSON, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	......	......	......	......	0.13	0.00	2.81	1.23	[0.93]	0.02	0.98	4.09	......
1868	3.12	2.27	1.55	1.40	0.63	0.00	7.24	8.30	0.93	0.70	0.75	......	......
Means	......	......	......	......	0.38	0.00	5.02	4.76	0.93	0.36	0.86	......	24.74

MOJAVE, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	0.30	1.10	0.15	T	T	T	0.00	T	0.00	0.14	0.74	0.06	2.49
1870	T	T	0.02	0.00	0.00	0.00	0.71	1.90	0.00	0.78	0.00	0.27	3.68
1871	0.00	0.02	0.00	4.05	0.00	0.00	0.66	0.00	0.00	0.10	0.00	0.03	4.86
1872	0.00	0.10	0.00	0.20	0.00	1.00	0.00	0.90	0.00	0.00	0.00	0.10	2.30
1873	0.00	0.80	0.10	0.10	1.20	0.00	0.00	3.80	T	0.00	0.50	2.80	9.30
1874	0.00	5.00	0.20	0.10	0.90	0.00	0.70	0.40	0.00	2.00	2.00	0.20	11.60

Monthly and annual precipitation at seventy-four stations in Arizona—Continued.

MOJAVE, FORT, ARIZ.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	1.90	0.00	0.40	0.10	T	0.00	0.35	0.10	0.10	0.00	0.15	0.00	3.10
1876	1.90	1.25	0.60	0.10	0.00	0.00	0.86	0.19	0.33	0.01	0.00	0.00	5.24
1877	0.26	0.57	0.01	0.03	0.38	0.00	0.12	0.20	0.00	0.00	0.00	1.60	3.17
1878	0.22	2.10	0.25	0.06	T	T	T	0.80	0.11	0.00	0.42	0.01	3.97
1879	0.30	0.80	0.00	0.08	0.00	0.00	T	0.72	0.00	0.90	0.30	0.24	3.34
1880	1.00	0.00	0.00	0.00	0.00	0.00	T	0.71	0.07	0.00	0.00	0.38	2.16
1881	T	0.00	0.75	0.71	0.01	0.00	1.80	0.30	0.14	T	0.00	0.00	3.71
1882	0.66	0.66	0.00	0.26	0.00	0.08	0.18	T	......	0.04	0.08	0.00	......
1883	0.16	0.54	0.50	0.22	0.02	0.07	0.15	T	0.42	0.10	0.00	1.23	3.41
1884	0.00	2.80	0.64	0.67	0.29	0.00	T	T	0.00	0.07	0.00	5.69	10.16
1885	0.00	0.00	0.18	0.30	T	0.00	0.00	T	0.00	T	1.70	0.02	2.20
1886	1.50	0.36	0.92	0.84	0.00	0.00	T	1.86	0.00	0.00	0.28	T	5.76
1887	T	1.44	T	0.50	0.25	T	0.25	1.62	T	0.46	0.35	0.80	5.67
1888	0.95	0.34	1.66	T	0.00	0.00	0.18	T	0.00	0.86	6.16	4.20	14.35
1889	4.15	0.35	2.50	0.71	0.26	T	T	0.74	0.00	0.65	0.85	11.17	21.38
1890	2.80	1.10	0.76	0.00	0.00	0.00	0.00	1.50	......	......	......	......	......
Means	0.74	0.88	0.44	0.41	0.15	0.05	0.28	0.68	0.06	0.29	0.64	1.37	5.99

NATURAL BRIDGE, ARIZ.

1890	*4.00	3.50	2.40	1.00	0.01	0.01	2.66	4.16	3.37	1.46	3.50	4.38	30.45

NEW RIVER, ARIZ.

1889	......	......	......	0.00	T	T	......	1.31	0.05	1.70	[0.50]	[6.00]	......
1890	......	......	......	0.37	0.00	0.000	2.30	1.69	0.29	*3.27	1.77	4.30	......
Means	......	......	......	0.18	......	......	......	1.50	0.17	......	......	......	......

ORO (CLIFTON), ARIZ.

1889	......	......	......	......	......	......	[2.00]	[0.80]	1.71	1.22	0.67	0.55	......
1890	1.23	0.21	0.48	0.47	0.18	0.00	*2.56	4.93	2.04	1.80	0.53	1.51	15.94
Means	......	......	......	......	......	......	......	......	......	......	......	......	9.52

PANTANO, ARIZ.

1880	......	......	......	......	......	......	......	......	......	0.00	0.00	0.70	......
1881	0.08	0.00	1.22	0.73	0.60	0.00	4.52	2.72	3.30	2.48	0.00	0.00	15.65
1882	2.12	2.80	0.65	0.00	0.60	0.90	1.77	5.74	0.00	0.00	1,15	0.00	15.73
1883	1.84	0.41	1.61	0.00	0.30	0.45	1.77	2.06	0.06	0.53	0.05	0.19	......
1884	0.31	1.04	0.73	0.00	0.34	0.10	0.40	2.60	1.45	2.80	0.85	4.70	......
1885	0.00	1.10	0.78	0.05	0.20	0.99	1.57	1.63	2.08	0.00	0.00	0.56	8.96
1886	1.40	1.07	0.85	0.30	0.00	0.00	1.00	2.54	2.24	0.46	0.50	0.00	10.36
1887	0.00	1.15	0.00	0.00	0.40	0.31	1.86	2.66	1.38	0.38	0.50	1.19	......
1888	0.00	0.80	1.42	0.02	0.25	......	......	......	......	......	1.83	0.50	......
1889	1.59	0.65	2.08	0.88	0.00	1.14	3.22	2.42	2.52	0.04	0.00	0.96	15.50
1890	1.97	0.75	0.15	0.79	0.00	0.00	2.49	6.30	3.97	*0.75	0.00	1.54	18.71
Means	0.93	0.98	0.95	0.22	0.27	0.39	2.01	2.80	1.63	0.74	0.49	0.88	12.29

PAYSON, ARIZ.

1889	......	......	......	......	......	......	2.40	0.50	1.15	1.90	[0.00]	8.43	23.09
1890	2.44	3.62	2.00	0.65	0.00	0.00	......	......	*2.04	2.06	3.80	4.13	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

***Monthly and annual precipitation at seventy-four stations in Arizona*—Continued.**

PHŒNIX, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	0.82	0.27	0.00	0.00	No record.		[1.00]	0.90	0.72	0.00	0.00	......
1877	0.60	1.63	0.31	0.00	0.00	0.00	[1.00]	0.02	1.11	0.04	0.03	0.43	[5.17]
1878	0.07	1.07	0.96	1.25	0.04	0.00	2.40	1.63	0.19	0.00	0.27	0.64	8.52
1879	0.07	0.75	0.33	0.07	0.00	0.00	0.54	0.67	0.69	0.27	1.66	1.35	6.40
1880	1.16	0.38	0.26	0.15	0.00	0.49	1.18	0.72	0.67	0.20	0.00	1.61	6.82
1881	0.00	0.20	1.46	1.10	0.12	0.00	2.03	2.19	1.04	0.25	0.36	0.16	8.91
1882	1.62	0.17	0.00	0.00	0.00	0.37	0.32	1.81	1.25	0.10	1.30	0.00	6.94
1883	0.83	1.27	1.16	T	0.44	0.00	0.07	0.07	0.00	0.20	0.00	3.36	7.40
1884	0.16	2.46	2.14	0.40	0.01	0.15	0.07	1.84	1.50	1.12	0.24	2.74	12.83
1885	0.00	0.47	0.33	0.00	0.65	0.04	0.18	0.71	0.07	0.09	0.91	0.32	3.77
1886	1.32	1.25	1.86	0.29	0.00	0.00	0.05	0.59	0.45	0.58	0.32	0.07	5.78
1887	0.00	0.28	T	0.75	0.06	0.00	......	......	......	......	......	[0.50]	......
1888	......	......	......	0.01	0.30	0.00	0.13	0.27	0.23	[2.80]	1.10	[3.00]	......
1889	......	......	......	......	0.00	0.12	0.66	1.77	0.39	0.99	0.77	3.38	......
1890	0.95	0.52	1.18	0.51	0.00	......	......	......	......	......	......	......	......
Means	0.56	0.87	0.67	0.32	0.12	0.09	0.72	1.02	0.65	0.57	0.54	1.25	7.38

PEORIA, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	1.56	0.24	1.00	0.01	T	T	1.75	2.80	0.90	1.33	0.47	3.73	13.79
1890	0.70	......	......	......	......	......	......	......	......	......	......	......	......
Means	1.13	......	......	......	......	......	......	......	......	......	......	......	13.36

RED ROCK, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	2.54	1.99	1.04	0.00	[0.50]	1.05	......
1890	1.05	[0.60]	0.50	0.25	0.00	0.00	......	......	......	*2.91	......	0.80	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	8.92

RENO, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	......	1.80	4.00	2.70	......	......	......	......	......	......	......	......	......
1869	2.62	3.52	0.88	0.03	T	0.50	[0.00]	0.01	0.02	1.00	3.50	0.70	[12.78]
1870	2.30	2.00	......	......	......	......	......	......	......	......	......	......	......
Means	2.46	2.44	2.44	1.37	......	......	......	......	......	......	......	......	14.44

SAN SIMON, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	......	......	......	......	......	......	......	......	......	......	0.04	......
1882	0.12	0.24	0.44	0.03	0.59	0.21	0.50	3.60	0.27	0.00	0.30	0.20	6.50
1883	0.50	0.35	0.86	0.00	0.00	0.00	1.25	2.54	0.70	0.15	0.35	0.45	7.15
1884	0.40	0.60	2.21	0.00	0.34	0.08	1.21	2.47	0.40	1.63	0.00	1.03	10.37
1885	0.16	0.05	0.20	0.00	0.10	0.01	0.07	0.50	0.00	0.00	[0.50]	[0.80]	[2.39]
1886	0.10	0.20	0.00	0.00	0.00	0.00	[0.25]	0.71	0.09	0.05	0.32	0.30	[2.02]
1887	0.01	0.78	0.00	0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.99
1888	0.00	0.00	......	......	0.00	0.00	......	......	0.00	......	......	......	[4.55]
1889	......	......	......	T	0.00	T	......	......	......	......	......	0.27	......
1890	0.84	T	0.00	0.00	0.00	0.00	1.67	2.46	1.62	*0.07	0.50	1.27	8.43
Means	0.27	0.28	0.53	0.02	0.11	0.04	0.55	1.61	0.22	0.30	0.24	0.39	4.59

SIMMONS, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1890	*1.00	0.45	0.23	0.08	0.00	0.00	0.10	1.43	0.13	0.30	0.41	0.44	4.57

SPRINGERVILLE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1890	*1.75	0.75	0.25	0.50	0.25	0.50	2.00	2.50	1.00	0.25	1.65	1.45	12.85

Monthly and annual precipitation at seventy-four stations in Arizona—Continued.

SAN CARLOS, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	......	......	......	......	0.00	4.13	5.93	1.94	0.93	0.06	0.52	....
1882	1.24	0.93	0.55	0.00	0.71	1.09	1.98	6.05	0.58	0.00	1.58	0.66	15.37
1883	1.60	2.07	0.71	0.00	0.53	0.00	2.48	1.11	0.11	1.13	0.00	2.47	12.21
1884	1.00	3.83	3.97	0.84	0.32	0.49	0.37	1.24	0.83	1.49	0.55	5.48	20.41
1885	0.05	1.39	1.28	0.03	0.22	0.47	1.25	1.22	0.34	0.34	0.70	0.90	8.19
1886	2.88	1.29	0.82	0.14	0.00	0.00	0.03	3.49	0.87	0.46	0.46	0.00	10.44
1887	T	1.12	0.00	0.23	0.06	0.31	2.49	1.56	0.88	0.08	[0.50]	1.45	[8.68]
1888	0.52	1.03	1.93	0.00	0.10	0.00	2.10	0.40	0.63	1.73	1.76	2.84	13.04
1889	1.62	1.33	2.15	0.25	0.00	T	1.83	0.87	2.05	0.60	0.40	2.30	13.40
1890	2.11	1.66	1.03	1.31	0.00	0.00	2.25	3.41	0.89	*1.22	2.12	2.63	17.86
Means	1.22	1.63	1.38	0.31	0.22	0.24	1.85	2.43	0.91	0.75	0.67	1.85	13.46

SHOW LOW (40 MILES NORTH OF APACHE), ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	T	......	......	......	......	......	....
1889	......	......	......	......	......	......	......	0.60	1.15	0.42	0.65	2.25	....
1890	1.85	3.10	4.50	1.40	0.00	0.00	4.28	3.60	1.65	*1.10	1.85	2.80	26.13
Means	......	......	......	......	......	2.14	2.10	1.40	......	......	......	......	19.81

SIGNAL, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	T	0.06	T	0.98	0.42	0.56	T	5.63	....
1890	0.77	1.31	0.46	0.16	0.00	0.00	0.94	3.17	0.19	*1.49	0.46	1.08	10.03
Means	......	......	......	......	T	0.03	0.47	2.07	0.30	......	......	......	11.76

SILVER KING, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	1.88	2.78	0.97	1.17	0.83	5.22	....
1890	3.77	2.93	0.64	[0.60]	0.00	[0.00]	......	......	......	......	......	......	....
Means	......	......	......	......	......	......	......	[illegible]	......	......	......	......	20.79

STRAWBERRY, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	0.00	0.20	2.10	1.41	3.50	2.74	0.20	12.38	....
1890	3.35	[3.60]	1.88	0.40	[0.00]	0.18	3.13	3.27	3.19	*1.83	2.90	4.99	....
Means	......	......	......	......	0.00	0.19	2.61	2.34	3.34	......	......	......	33.03

STANWIX, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	......	0.00	0.02	....
1876	0.65	0.69	0.01	0.00	0.00	0.00	[0.00]	[0.00]	0.00	0.00	0.06	0.00	[1.41]
1877	0.54	2.44	0.05	0.00	0.29	0.00	0.13	0.03	0.49	0.00	0.00	......	....
Means	0.60	1.56	0.03	0.00	0.14	0.00	0.06	0.02	0.24	0.00	0.02	0.01	2.68

TEMPE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	......	0.97	3.64	....
1890	0.87	0.81	0.44	0.33	*0.00	*0.00	*1.75	*1.42	T	0.15	*2.06	1.49	9.32

***Monthly and annual precipitation at seventy-four stations in Arizona*—Continued.**

TEVISTON, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	0.14	0.26	0.60	0.05	0.16	1.14	1.08	......
1889	1.20	0.80	0.80	0.20	0.00	3.80	1.80	0.10	2.30	0.60	0.20	0.20	12.00
1890	3.80	T	0.20	3.00	0.00	0.00	5.20	4.00	0.12	*0.00	0.00	1.70	18.17
Means	2.50	0.40	0.50	1.60	0.00	1.31	2.42	1.57	0.82	0.38	0.67	0.64	12.81

TEXAS HILL, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	......	......	......	......	......	......	0.29	0.05	0.55	0.43	0.47	......
1880	0.23	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.34	0.98
1881	0.00	0.00	0.24	0.56	0.00	0.00	0.03	0.24	0.12	2.50	0.00	0.18	3.87
1882	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.53	[0.00]	0.05	0.12	0.00	[2.57]
1883	0.19	0.14	0.20	0.03	0.00	0.00	0.68	0.70	0.00	0.09	[0.00]	1.05	[3.08]
1884	0.22	1.21	1.75	0.28	0.28	0.00	0.00	0.00	0.02	0.00	0.00	1.26	5.02
1885	0.00	0.04	0.02	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.32	0.00	2.63
1886	0.93	1.15	0.00	0.20	0.00	0.00	T	0.95	0.00	1.50	0.00	0.00	4.73
1887	0.00	0.01	0.00	T	0.00	0.00	T	T	2.89	0.00	1.40	0.05	4.35
1888	0.25	0.00	0.63	0.00	0.00	0.00	0.08	0.00	[0.30]	1.94	[0.50]	1.29	[4.99]
1889	2.65	0.00	0.12	0.00	0.00	0.00	T	0.00	0.00	0.10	0.05	0.62	3.54
1890	0.00	0.40	0.00	0.00	0.00	0.00	0.10	[0.50]	0.10	*0.03	0.10	1.28	2.86
Means	0.58	0.27*	0.27	0.10	0.03	0.00	0.08	0.45	0.34	0.61	0.26	0.48	3.47

THOMAS, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	......	......	......	0.06	0.00	0.55	0.87	2.49	0.55	0.18	0.03	1.27	......
1881	0.03	0.13	1.21	0.63	0.07	0.00	4.18	2.49	1.55	0.40	0.32	0.40	11.41
1882	0.33	1.01	0.70	0.02	0.47	1.26	0.88	2.48	0.28	0.00	0.77	0.46	8.66
1883	1.23	1.54	1.33	0.00	0.79	0.00	1.85	2.52	T	0.52	0.00	1.07	10.85
1884	0.45	2.94	3.21	0.72	0.60	0.52	0.36	2.04	0.91	0.69	0.56	5.16	18.16
1885	0.03	1.00	0.75	0.14	0.09	0.18	2.93	2.46	0.02	0.01	0.38	0.71	8.70
1886	2.16	1.40	0.44	0.24	0.00	0.00	0.10	4.02	1.18	1.12	0.16	0.04	10.86
1887	0.09	0.84	0.00	0.31	2.73	0.35	3.78	2.53	3.87	0.28	0.52	1.05	16.35
1888	0.65	1.66	1.78	0.37	0.23	0.00	1.88	0.64	0.55	2.80	1.72	1.66	13.34
1889	1.47	1.35	0.96	0.10	0.00	T	3.45	1.40	0.38	0.26	0.34	1.18	10.89
1890	1.92	0.49	0.45	1.21	0.00	T	2.02	4.11	0.75	*1.30	0.69	0.99	13.93
Means	0.84	1.18	1.08	0.35	0.45	0.26	2.03	2.31	0.93	0.63	0.48	1.30	11.84

TIP TOP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	0.00	2.50	1.17	0.26	2.97	0.00	8.63	......
1890	2.15	6.06	2.41	0.56	0.00	0.00	3.20	2.46	0.41	*2.36	2.90	4.34	......
Means	......	......	......	......	......	0.00	2.85	1.81	0.34	......	......	......	27.78

TUCSON, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	......	0.18	0.82	......
1876	0.37	0.25	1.22	0.00	0.00	0.29	3.71	4.19	2.28	0.96	0.75	0.00	14.02
1877	0.19	2.53	0.20	0.57	0.41	0.00	3.04	0.02	2.44	0.46	0.00	2.91	12.77
1878	0.22	1.00	1.77	0.52	0.00	0.65	5.72	4.71	0.08	0.00	1.31	0.68	16.66
1879	2.02	0.94	0.83	0.02	0.00	0.01	0.84	1.76	0.74	0.94	0.60	3.31	12.01
1880	0.56	0.15	0.41	0.01	0.00	T	1.62	1.28	1.89	0.09	0.00	0.57	6.61
1881	0.05	0.25	1.17	0.62	0.04	0.00	5.69	3.92	2.37	0.62	0.00	0.19	14.92
1882	1.75	1.64	0.72	0.05	0.01	0.99	2.63	6.32	0.32	0.00	1.12	0.04	15.59
1883	1.27	0.51	1.14	T	0.35	0.08	2.20	1.40	0.10	0.65	0.02	0.06	7.78
1884	0.83	2.59	1.91	0.17	0.23	0.23	0.32	1.15	0.30	2.24	0.34	4.72	15.03
1885	0.00	0.42	0.40	0.00	0.00	0.13	1.00	1.76	0.12	0.00	0.42	1.01	5.26
1886	1.61	0.36	0.87	0.06	0.00	0.00	1.06	2.47	[1.00]	0.31	0.45	0.40	[8.59]
1887	0.00	0.85	0.00	0.38	0.32	0.26	5.08	1.25	2.08	1.72	0.74	0.27	12.95
1888	0.73	0.57	1.03	T	0.32	0.55	1.58	0.92	0.10	0.78	2.06	1.96	10.60
1889	1.74	1.06	1.98	0.18	T	0.30	5.66	2.06	3.12	0.36	0.32	1.59	18.37
1890	1.27	0.76	0.29	0.10	0.00	0.00	2.37	5.13	1.44	*0.65	0.83	1.32	......
Means	0.84	0.93	0.93	0.18	0.11	0.23	2.87	2.37	1.21	0.65	0.55	1.24	12.11

***Monthly and annual precipitation at seventy-four stations in Arizona*—Continued.**

VERDE, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	......	0.57	......	......	......	......	......	......	......	......	......	0.27	......
1869	0.34	1.72	1.00	0.09	0.03	0.83	0.07	7.26	0.00	0.02	4.04	0.00	15.40
1870	0.50	0.01	0.50	0.15	0.00	0.22	3.06	0.89	0.00	0.60	0.10	0.58	6.61
1871	0.20	0.00	0.04	0.73	0.00	0.00	0.84	0.26	1.00	1.10	0.39	0.26	4.82
1872	0.47	1.12	0.16	1.56	0.54	0.22	2.22	4.35	1.12	0.10	0.00	0.83	12.69
1873	0.00	1.16	0.00	0.00	0.15	0.20	0.14	2.52	0.26	0.00	0.74	3.26	8.43
1874	2.65	2.05	1.05	1.48	0.03	0.00	1.88	2.48	0.00	1.45	3.52	0.66	17.30
1875	2.91	0.05	0.30	T	0.06	0.00	3.33	2.01	1.35	0.00	0.65	0.13	10.79
1876	2.06	0.75	1.00	0.75	0.00	0.98	5.31	12.08	2.40	2.10	0.15	0.00	27.58
1877	0.71	0.51	0.89	0.85	1.70	0.00	0.70	0.41	2.08	0.43	0.05	2.23	10.56
1878	0.14	1.12	1.84	1.75	0.16	0.06	2.10	4.60	0.98	0.00	0.36	1.24	14.35
1879	0.20	0.14	0.00	0.10	0.00	0.00	0.97	0.53	1.40	0.23	2.40	3.03	9.00
1880	1.08	0.13	0.30	0.27	0.00	0.16	1.85	0.97	0.19	0.57	0.13	1.56	7.21
1881	0.07	0.12	2.64	0.97	0.07	T	1.41	7.53	1.88	0.20	0.21	0.27	15.37
1882	2.72	0.93	0.01	0.03	0.19	1.35	1.25	1.18	2.16	0.25	1.73	0.07	11.87
1883	0.44	1.35	1.63	0.12	0.27	0.04	3.35	1.14	0.00	0.45	0.00	4.30	13.09
1884	0.39	3.59	3.60	1.43	0.72	0.23	0.19	1.24	0.68	0.84	0.15	4.66	17.72
1885	0.00	0.80	2.25	0.69	0.19	0.05	0.84	3.01	0.03	0.61	1.88	0.52	10.87
1886	1.90	1.48	2.09	0.82	0.02	0.01	0.18	3.18	0.20	0.13	0.55	0.60	11.16
1887	0.04	0.78	0.02	0.58	0.60	0.18	3.11	2.96	4.72	0.00	1.37	0.87	15.23
1888	0.96	1.56	1.78	0.43	0.96	0.00	2.21	0.73	0.56	4.47	2.80	3.15	19.61
1889	1.95	0.25	1.66	0.00	0.00	0.02	3.10	0.75	1.60	1.74	0.08	5.08	16.23
1890	1.39	1.97	1.35	0.82	0.01	0.00	1.83	2.30	0.55	......	......	......	......
Means	0.96	0.96	1.10	0.62	0.26	0.21	1.81	2.86	1.08	0.73	1.01	1.53	13.13

WALLEN, CAMP, ARIZ.

1866	......	......	......	......	......	......	......	......	......	......	......	0.00	......
1867	4.60	2.44	0.60	T	0.00	T	6.66	2.50	0.20	T	T	0.90	17.90
1868	1.10	0.50	0.30	0.50	0.10	0.03	7.90	4.20	2.00	T	T	7.90	24.53
1869	1.60	1.97	0.67	0.25	T	0.05	1.40	8.00	0.50	[0.97]	[0.98]	[0.98]	[17.37]
Means	2.43	1.64	0.52	0.25	0.03	0.03	5.32	4.90	0.90	0.32	0.33	2.44	19.11

TOMBSTONE, ARIZ.

1889	......	......	......	0.00	......	......	3.59	2.03	......	......	T	......	......
1890	2.51	0.00	......	......	0.00	0.00	4.14	6.26	2.96	......	......	......	......

WALNUT GROVE, ARIZ.

1889	......	......	......	......	0.00	T	2.10	1.65	0.06	[2.50]	1.00	7.55	......
1890	0.70	4.50	1.95	0.30	[0.00]	0.00	2.10	4.65	0.60	......	......	......	......
Means	......	......	......	......	0.00	T	2.10	3.15	0.33	......	......	......	24.08

WALNUT RANCH, ARIZ.

1889	......	......	......	......	......	......	......	......	......	......	0.13	0.54	......
1890	1.77	0.08	0.00	0.29	0.00	0.00	5.06	4.89	1.06	2.11	......	......	......

WICKENBURGH, ARIZ.

1875	......	......	......	......	......	......	......	......	......	......	0.07	0.20	......
1876	2.73	0.56	0.21	......	......	......	......	......	0.40	0.58	1.45	0.00	......
1877	1.00	1.13	0.26	0.45	0.47	0.00	0.19	0.05	1.06	0.00	0.00	1.74	6.35
1878	0.67	0.60	0.51	0.80	0.35	0.05	0.09	3.86	0.39	0.00	0.12	0.63	8.07

Monthly and annual precipitation at seventy-four stations in Arizona—Continued.

WICKENBURGH, ARIZ.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	0.15	2.11	0.33	0.13	0.00	0.00	0.62	1.27	1.10	0.10	1.69	3.12	10.65
1880	1.33	0.25	T	0.25	0.00	0.00	2.29	0.61	0.89	0.08	0.00	1.23	6.93
1881	0.07	0.00	1.70	0.70	0.07	T	1.82	5.02	1.16	0.09	0.41	0.36	11.40
1882	1.82	0.69	0.00	0.04	......	......	......	......	......	......	......	......	....
1883	......	......	......	......	......	......	......	......	......	0.22	0.00	4.06	....
1884	0.19	4.21	3.67	1.24	0.64	0.06	0.28	1.02	0.23	0.33	0.03	5.27	17.17
1885	T	0.33	0.50	0.57	0.55	0.05	0.36	2.10	0.01	0.21	1.36	2.25	8.32
1886	2.73	......	......	......	......	......	......	......	......	......	......	......	....
Means	1.07	1.10	0.80	0.52	0.30	0.02	0.81	1.99	0.66	0.18	0.51	1.89	9.85

WILLCOX, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	......	......	......	......	......	......	......	......	......	0.04	0.00	0.40	....
1881	0.02	0.00	2.95	T	0.00	[0.00]	3.97	5.17	0.00	0.00	0.00	0.00	[12.11]
1882	[0.50]	1.15	0.00	0.00	0.00	[0.90]	0.11	3.46	1.56	0.00	0.58	0.32	[8.58]
1883	1.25	0.31	0.41	0.00	0.33	0.03	1.56	3.15	0.04	0.30	0.36	0.99	8.73
1884	0.80	1.61	1.75	0.00	0.00	0.04	1.17	1.54	0.11	3.59	0.25	3.49	14.38
1885	0.05	0.63	1.52	0.03	[0.20]	0.34	1.78	2.10	1.11	0.00	0.56	0.19	[8.51]
1886	[3.00]	[1.00]	0.15	0.01	0.00	T	0.37	2.14	1.68	0.36	0.58	0.08	[9.37]
1887	T	1.83	0.00	0.03	0.48	0.47	3.82	5.31	2.96	0.45	0.22	0.92	16.49
1888	0.36	1.21	1.13	0.03	0.14	0.08	3.68	0.42	0.50	1.15	1.86	1.37	11.93
1889	1.31	0.90	1.06	0.04	0.00	0.13	4.91	0.97	2.91	0.83	T	0.62	13.68
1890	1.61	0.35	0.22	0.63	0.00	0.14	2.64	5.20	1.97	......	......	......	....
Means	0.89	0.90	0.92	0.08	0.12	0.21	2.37	2.70	1.21	0.67	0.44	0.84	11.35

WILLOW GROVE, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	0.48	0.61	0.42	0.16	0.28	0.00	4.67	2.73	0.14	0.33	0.23	0.35	10.40
1869	0.48	1.15	......	1.02	0.12	0.07	1.43	2.01	0.00	......	......	......	....
Means	0.48	0.88	0.42	0.59	0.20	0.04	3.05	2.37	0.07	0.33	0.23	0.35	9.01

WILLIAMS, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	0.14	0.00	1.35	0.14	0.14	2.30	4.60	3.80	....
1889	0.70	1.70	0.95	0.05	T	T	1.45	4.00	4.13	0.30	[0.50]	1.80	[15.58]
1890	2.50	......	......	......	......	......	......	......	......	......	......	......	....
Means	1.60	1.70	0.95	0.05	0.07	T	1.40	2.07	2.14	1.30	2.55	2.80	16.63

WILLOW SPRINGS, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	0.00	0.00	3.77	1.44	[0.50]	[1.00]	1.75	3.08	....
1889	2.04	[1.00]	5.77	[0.25]	0.00	0.20	3.06	2.41	0.92	[1.00]	1.15	3.67	21.47
1890	2.98	1.74	......	......	......	......	......	......	......	......	......	......	....
Means	2.51	1.37	5.77	[0.25]	0.00	0.10	3.42	1.92	0.71	1.00	1.45	3.38	21.88

WHIPPLE BARRACKS (PRESCOTT), ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1865	......	......	......	......	......	T	......	......	......	......	......	......	....
1866	......	......	......	......	......	......	......	......	3.65	0.57	0.08	0.31	....
1867	1.72	1.16	8.00	0.06	1.17	0.00	2.70	2.38	......	0.10	0.20	2.20	....
1868	2.97	5.30	0.50	1.00	......	0.00	6.16	2.72	0.30	0.55	1.50	4.40	....
1869	0.80	0.92	......	......	......	......	......	......	......	1.40	1.45	0.00	....
1870	0.00	1.20	1.09	0.26	1.73	0.24	7.98	3.49	0.00	1.59	0.30	0.53	18.41

Monthly and annual precipitation at seventy-four stations in Arizona—Continued.

WHIPPLE BARRACKS (PRESCOTT), ARIZ.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	0.70	1.01	0.10	1.92	0.47	0.00	4.00	1.80	1.51	1.40	0.52	0.00	13.43
1872	0.50	0.80	0.12	1.62	1.47	1.24	3.74	6.25	0.04	0.24	0.00	0.64	16.66
1873	0.00	1.00	0.23	0.17	0.40	0.42	1.56	4.78	0.30	0.00	0.80	2.55	12.21
1874	5.51	5.68	3.56	1.70	0.65	0.00	5.72	1.56	0.00	0.50	......	......	....
1875	......	......	......	......	0.00	0.00	5.92	1.66	0.77	0.00	0.18	0.63	....
1876	4.60	0.01	0.83	0.51	0.52	0.25	3.28	4.51	0.72	0.93	0.00	0.00	16.16
1877	0.36	0.55	0.49	1.50	1.82	0.00	1.29	0.24	2.42	1.36	0.00	2.23	12.27
1878	0.28	2.02	0.48	2.86	0.33	0.33	0.91	6.34	0.61	0.00	0.45	1.02	15.63
1879	0.91	0.94	0.05	0.03	0.00	0.05	1.87	2.20	0.68	0.37	1.58	4.21	12.89
1880	0.35	0.16	0.11	0.52	0.00	0.04	2.34	2.80	1.26	0.18	0.42	1.84	10.02
1881	0.16	0.10	2.91	0.67	0.42	T	3.27	5.25	1.69	0.33	0.30	0.33	15.43
1882	2.53	2.04	0.00	0.28	0.45	0.47	1.64	3.34	2.57	0.39	1.55	0.00	15.26
1883	0.31	0.63	2.33	0.86	0.15	0.09	3.20	3.26	0.33	0.43	T	4.54	16.13
1884	0.25	6.55	5.51	1.62	1.45	0.32	1.33	1.57	0.99	1.42	0.16	5.58	26.75
1885	0.08	0.46	1.47	0.62	0.37	0.07	2.53	1.24	0.11	0.38	2.46	0.32	10.11
1886	5.99	1.15	3.04	1.18	0.03	0.00	0.61	4.41	0.46	0.23	1.68	T	18.78
1887	T	3.12	T	2.57	0.43	0.57	2.64	0.71	4.88	0.05	1.57	0.82	17.36
1888	1.30	1.68	1.66	0.52	1.96	0.00	2.49	1.42	0.62	1.75	3.18	2.94	18.52
1889	1.73	1.35	2.91	0.19	T	0.02	1.45	1.51	2.11	1.76	0.42	7.38	20.83
1890	2.29	3.02	1.52	0.86	0.00	0.06	2.19	2.67	1.48	......	......	......	....
Means	1.45	1.78	1.68	0.98	0.58	0.17	3.03	2.88	1.18	0.66	0.82	1.85	17.06

WINSLOW, ARIZ.

1888	......	......	......	......	......	0.01	0.43	0.23	0.30	0.84	1.69	6.12	....
1889	[0.50]	0.60	0.60	0.02	0.00	0.85	0.55	1.10	0.31	0.42	0.00	0.87	[5.82]
Means	[0.50]	0.60	0.60	0.02	0.00	0.43	0.49	0.66	0.30	0.63	0.84	3.50	8.57

WOOD CAÑON, ARIZ.

1889	......	......	......	......	......	......	......	......	1.41	0.70	0.30	1.00	....
1890	2.70	0.90	0.00	1.00	......	......	......	3.63	5.80	......	......	......	....

YUMA, ARIZ.

1875	......	......	......	......	......	......	......	......	......	T	0.00	0.00	....
1876	0.44	0.46	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94
1877	0.09	1.72	0.00	0.00	0.06	0.00	0.50	0.06	T	0.00	0.00	1.23	3.66
1878	0.00	0.06	0.13	0.02	0.00	0.00	0.55	1.59	0.37	0.00	0.02	0.14	2.88
1879	0.59	1.21	0.48	0.15	0.00	0.00	0.00	0.00	0.11	0.33	0.15	0.27	3.29
1880	T	T	0.00	T	0.00	0.00	T	T	T	T	0.00	0.74	0.74
1881	0.00	0.00	T	0.55	0.00	T	0.20	0.08	0.05	T	0.00	0.10	0.98
1882	1.35	0.01	0.00	0.00	0.00	0.05	0.20	0.03	0.04	0.01	0.09	0.00	1.78
1883	0.96	0.68	T	T	0.00	0.00	0.31	0.22	0.13	0.05	0.00	[1.61]	3.96
1884	T	1.58	1.48	0.07	0.44	T	0.01	0.32	T	T	T	1.96	5.86
1885	T	0.02	T	0.07	T	0.00	0.05	0.86	0.00	0.00	1.71	0.01	2.72
1886	1.06	0.08	0.33	0.31	0.00	0.00	T	2.23	0.00	1.11	0.23	0.00	5.35
1887	0.00	T	0.00	0.20	T	0.01	T	T	1.09	0.02	2.43	0.15	3.90
1888	0.18	0.05	0.05	T	0.00	0.00	0.04	T	0.01	0.99	0.68	0.95	2.95
1889	1.12	0.06	0.24	0.00	0.00	T	T	0.25	0.00	0.59	T	2.43	4.69
1890	T	0.86	T	0.37	0.43	0.00	0.00	0.67	0.64	......	......	......	....
Means	0.39	0.45	0.18	0.12	0.06	T	0.13	0.40	0.13	0.21	0.35	0.64	3.06

Appendix No. 9.

MEAN MONTHLY AND ANNUAL TEMPERATURE FOR FORTY-NINE STATIONS IN ARIZONA.

The prefatory note to Appendix No. 8, with reference to interpolated values, applies also to the bracketed figures in the temperature tables. Letters of the alphabet set against the data for any month indicate the number of days missing from the record for that month; thus "c" indicates three days missing.

APACHE, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	......	......	38.6	37.2	......
1872	33.8	40.3	45.1	50.3	64.7	73.1	73.0	71.5	65.2	55.5	40.1	39.7	54.4
1873	37.1	38.2	49.6	52.7	62.3	74.3	79.4	70.6	70.0	58.9	48.1	34.0	56.3
1874	27.4	35.7	43.4	49.9	64.3	74.8	74.5	75.0	70.2	57.2	45.5	35.8	54.5
1875	35.6	38.3	41.3	54.0	66.9	74.2	73.2	72.9	66.2	60.0	43.3	36.7	55.2
1876	35.9	39.1	42.4	54.8	65.5	78.0	77.9	73.3	67.7	55.8	43.6	35.7	55.8
1877	38.5	41.7	49.8	49.7	59.2	74.9	83.6	77.1	67.9	59.2	41.3	39.8	56.9
1878	36.7	40.2	46.7	53.5	65.9	76.2	74.4	73.1	63.6	54.9	44.4	33.6	55.3
1879	33.3	42.6	50.6	51.8	58.5	66.1	71.8	69.8	66.9	53.7	39.9	35.5	53.4
1880	34.6	29.9	41.7	49.4	55.8	67.7	70.7	69.7	63.7	52.3	37.5	36.6	50.8
1881	33.3	40.1	41.6	53.6	59.7	69.8	72.6	68.3	60.9	53.7	37.4	38.3	52.4
1882	34.5	37.5	44.0	48.6	55.8	64.8	72.1	69.8	60.9	50.2	41.9	36.0	51.3
1883	31.9	39.3	47.5	48.0	56.4	69.0	70.3	69.4	63.8	50.6	41.1	38.9	52.2
1884	34.9	40.2	42.8	47.5	55.6	63.9	73.9	67.9	61.0	56.9	44.1	33.9	51.9
1885	32.5	39.6	47.1	53.3	58.7	64.9	73.0	70.5	66.0	56.3	47.5	39.6	54.1
1886	34.8	42.7	42.1	50.0	63.3	69.1	73.8	71.8	64.0	54.0	39.5	40.3	53.8
1887	36.8	41.2	49.5	51.8	61.6	71.9	72.9	71.2	66.8	55.4	46.1	33.4	54.9
1888	34.6	41.6	42.8	56.6	59.8	69.4	77.0	[72.0]	*h*69.8	*b*58.8	47.4	41.6	[56.0]
1889	35.6	38.1	46.8	55.8	62.8	71.2	76.3	75.0	66.0	58.0	43.2	46.3	56.3
1890	38.4	41.4	46.7	53.4	62.0	67.3	......	......	......	......	......	......	......
Means	34.7	39.4	45.3	51.8	61.0	70.6	74.5	74.6	65.6	55.6	42.7	37.5	54.4

ASH SPRINGS, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	......	......	52.2	......
1890	44.0	47.8	56.0	62.0	73.6	80.1	80.0	75.6	71.2	......	......	......	......

BEALE'S SPRINGS, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	65.0	68.0	82.8	88.4	80.2	78.6	64.7	58.9	42.9	......
1874	46.6	42.0	48.5	......	......	......	......	......	......	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	63.9

BENSON, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	[43.0]	44.6	52.1	70.0	84.1	86.7	[87.0]	81.1	71.5	69.4	53.0	[50.0]	[66.0]
1882	42.1	45.7	44.0	51.4	73.0	82.0	87.4	80.3	74.8	61.3	55.8	48.9	62.2
1883	43.8	45.7	60.6	64.1	78.3	91.4	85.5	80.4	82.2	69.1	57.3	49.8	67.4
1884	45.4	54.1	57.0	64.1	75.4	[85.3]	92.0	84.5	76.5	70.2	56.3	48.8	[67.5]
1885	45.2	51.8	59.4	65.4	76.3	83.2	87.7	83.0	78.1	67.6	59.4	50.4	67.3
1886	46.2	52.6	52.4	63.1	79.2	82.8	85.1	82.6	75.1	66.2	49.8	49.2	65.4
1887	45.5	49.5	60.2	64.2	75.6	85.1	82.8	81.5	78.6	61.7	53.6	40.0	64.9

Mean monthly and annual temperature for forty-nine stations in Arizona—Continued.

BENSON, ARIZ.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	44.8	49.7	56.2	67.7	73.4	84.6	84.1	84.3	78.8	69.9	54.9	49.6	66.5
1889	45.3	48.4	61.1	70.3	77.6	86.0	87.5	87.6	76.7	65.8	54.5	50.2	67.6
1890	44.5	48.5	59.6	66.2	79.0	86.3	......	......	......	......	......	......	......
Means	44.6	49.1	56.3	64.6	77.2	85.3	86.6	82.8	76.9	66.8	55.0	48.5	66.1

BOWIE, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	......	......	......	......	......	......	......	77.7	75.2	70.7	55.0	54.4	......
1868	42.2	48.6	53.9	62.2	67.9	81.9	76.7	78.3	72.8	68.8	53.2	52.1	63.2
1869	42.6	43.7	56.5	59.6	70.5	78.8	81.2	75.5	76.7	61.8	56.8	43.6	62.3
1870	48.1	53.8	54.4	65.5	73.6	78.3	76.8	76.9	75.4	65.8	57.5	44.5	64.2
1871	46.1	49.9	56.2	61.1	72.8	82.8	80.6	79.9	75.0	65.1	53.3	49.9	64.4
1872	44.7	50 5	56.2	56.5	71.1	78.8	77.6	75.6	72.3	62.2	48.8	48.9	61.9
1873	44.5	45.5	56.7	61.5	70.6	81.9	85.1	75.9	78.8	64.8	53.6	43.4	63.5
1874	45.2	41.4	48.0	54.5	72.0	83.9	78.8	79.7	76.7	66.9	55.8	45.6	62.4
1875	47.7	47.9	53.1	62.2	75.3	80.6	75.5	77.6	70.0	70.0	57.3	48.1	63.8
1876	44.1	48.0	51.6	66.6	72.3	79.7	77.9	74.8	73.2	65.4	52.9	47.5	62.8
1877	49.9	49.2	60.4	58.5	67.9	84.0	85.1	84.6	77.5	63.5	50.5	43.8	64.6
1878	43.1	46.6	53.2	58.6	69.2	81.3	81.9	77.2	73.4	66.8	51.4	45.0	62.3
1879	43.3	54.3	63.2	64.6	77.4	81.0	81.2	82.0	77.6	62.6	52.1	49.1	65.7
1880	47.9	43.1	52.6	62.4	73.7	81.5	78.1	77.2	73.2	63.8	50.3	46.2	62.5
1881	41.7	50.7	52.9	68.2	74.1	86.3	79.9	75.9	74.1	67.2	49.4	48.4	61.1
1882	44.4	45.7	55.9	63.0	70.4	76.7	81.4	78.6	72.2	65.5	51.3	46.3	62.6
1883	41.4	43.5	54.2	60.1	70.1	83.3	78.1	77.6	74.0	63.1	54.1	47.4	62.2
1884	42.3	47.0	51.8	61.4	64.5	76.5	84.1	78.7	74.7	62.9	53.5	45.0	61.9
1885	41.7	50.8	55.4	60.5	69.4	75.5	81.7	78.2	67.1	65.8	53.0	47.3	62.2
1886	37.8	46.6	48.8	57.0	74.1	78.6	81.1	75.9	69.1	58.8	47.0	51.0	60.5
1887	45.8	45.9	56.9	59.2	69.2	78.8	78.1	76.4	70.8	61.3	51.8	38.5	61.1
1888	43.3	46.4	48.2	62.4	66.8	78.6	78.7	77.8	71.4	63.5	50.0	42.2	60.8
1889	38.1	43.7	50.8	64.1	70.5	78.0	79.6	79.6	67.6	62.7	48.9	51.8	61.3
1890	44.8	48.2	54.2	60.9	71.4	76.6	......	......	......	......	......	......	......
Means	43.9	47.4	54.1	61.3	71.1	80.1	80.0	77.9	73.4	64.7	52.5	50.0	63.0

BUCHANAN, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1857	......	......	......	......	......	......	......	78.7	77.0	65.7	48.9	39.8	......
1858	39.2	45.4	47.4	59.6	66.5	74.7	75.6	73.2	70.2	59.0	45.6	38.6	57.9
1859	40.6	46.4	46.4	53.6	66.3	80.2	72.3	74.3	70.4	61.4	49.6	37.5	58.2
1860	41.6	41.2	55.5	59.7	68.2	76.2	78.0	77.0	72.6	64.0	50.0	45.3	60.8
1861	37.3	45.6	54.0	64.6	70.2	78.1	......	......	......	......	......	......	......
Means	39.7	44.6	50.8	59.4	67.8	77.3	75.3	75.8	72.6	62.5	48.5	40.3	59.6

COLORADO RIVER, CAMP ON, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	52.3	56.0	66.1	70.9	79.7	89.5	93.0	91.8	83.9	71.2	62.5	52.6	72.5
1870	5 .9	61.7	63.3	71.6	78.8	84.4	91.5	90.3	83.5	73.0	65.2	51.4	72.6
1871	57.6	58.4	......	......	......	......	......	......	......	......	......	......	......
Means	55.3	58.7	64.7	71.2	79.2	87.0	92.2	91.0	83.7	72.1	63.8	52.0	72.6

CRITTENDEN, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	......	......	......	64.8	69.8	83.3	80.0	77.0	77.8	62.6	[51.0]	42.4	......
1869	38.4	41.0	50.1	56.8	65.2	77.5	78.8	75.1	71.9	60.5	56.2	44.4	59.7
1870	45.8	49.0	53.7	64.0	73.2	77.0	73.3	71.5	70.1	60.8	51.1	39.5	60.8
1871	41.6	43.6	51.3	57.1	68.9	80.1	75.5	75.7	75.0	62.8	51.1	46.7	60.8
1872	42.3	46.2	53.3	59.2	70.4	79.1	74.4	[74.8]	[73.7]	62.7	45.4	44.3	[60.5]
1873	42.8	......	......	......	......	......	......	......	......	......	......	......	......
Means	42.2	45.0	52.1	60.4	69.5	79.4	76.4	74.8	73.7	61.9	51.0	43.5	60.8

***Mean monthly and annual temperature for forty-nine stations in Arizona*—Continued.**

CASA GRANDE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880										72.3	58.2		
1881	49.0					88.9	91.1	88.4	82.8	73.1	54.7	53.2	
1882	45.0	51.7	60.5	69.8	82.3	86.1	96.2	82.3	87.3	68.7	60.6	52.6	70.3
1883	49.2	55.4	64.9	70.7	79.1	95.3	93.4	89.5	88.7	73.7	65.5	56.0	73.4
1884	53.2	54.6	59.1	69.1	80.5	88.6	98.7	91.5	83.4	76.8	66.6	54.5	73.0
1885	49.5	56.0	67.1	71.5	80.2	91.5	94.7	94.6	88.9	78.3	67.9	56.0	74.7
1886	55.3	59.8	63.3	71.8	86.7	93.5	95.5	93.2	87.1	67.8	56.7	55.9	74.0
1887	52.0	56.6	69.5	71.8	80.5	92.2	93.4	93.4	88.0	74.7	63.6	49.0	73.7
1888	46.9	59.9	58.2	72.8	81.2	88.9	93.9	93.2	87.7	78.2	69.5	56.5	73.9
1889	51.0	55.5	66.5	74.2	79.1	89.6	93.0	93.7	84.7	76.7	69.6	65.9	75.0
1890	51.8	56.1	66.2	70.8	83.7	88.4							
Means	50.3	56.2	63.9	71.4	81.5	90.3	94.4	91.1	86.5	74.0	63.3	55.5	73.2

DATE CREEK, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867									79.3				
1868											50.2	45.4	
1869	44.5	44.3	54.6	59.3	71.1	84.2	85.3	82.9	75.9	b62.2	54.1	43.8	63.5
1870	45.1	51.0	50.4	63.1	73.6	83.0	84.3	82.0	75.5	65.3	56.5	43.6	64.4
1871	46.3	39.6	43.3	[60.3]	[70.8]	87.3	87.4	87.7	81.0	67.9	50.1	49.1	[64.2]
1872	44.1	48.7	54.5	58.5	71.0	79.5	82.4	81.8	77.7	67.6	49.8	45.9	63.5
1873	46.6	42.8	57.2	60.4	67.7	81.0	87.9						
Means	45.3	45.3	52.0	60.3	70.8	83.0	85.5	83.6	77.9	65.8	52.1	45.6	63.9

DEFIANCE, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1851												27.7	
1852					52.7	64.8	68.2	67.0	50.1	45.6	32.4	28.7	
1853	29.5	28.1	37.6	48.2	51.6	64.9	70.5	69.0	61.4	44.2	36.4	28.6	47.5
1854	24.4	30.6	37.0	46.5	51.1	62.4	71.0	64.9	57.1	48.9	38.1	32.0	47.0
1855	24.7	33.6	40.3	45.1	49.2	68.6	67.2	[63.9]	61.1	49.5	35.9	29.8	[47.4]
1856	23.7	25.5	36.4	47.4	54.8	67.3	70.0	66.0	56.7	44.0	29.4	17.2	44.9
1857	27.3	32.4	46.1	50.0	57.4	68.5	73.5	71.1	60.9	47.7	32.9	23.2	49.2
1858	13.3	31.9	39.0	48.4	56.8	66.9	70.8	66.6	61.6	47.0	36.0	21.7	46.7
1859	19.6	35.1	35.9	43.5	57.6	71.4	69.5	67.2	57.4	49.0	[35.3]	23.1	[47.0]
1860	30.2	31.1	41.9	48.4	57.4	[67.7]	71.6	72.0	60.1	50.1	34.9	30.0	[49.6]
1861	23.0	32.5	40.8										
1863										46.4	33.8		
Means	24.0	31.2	39.4	47.2	54.3	66.9	70.3	67.5	58.5	47.2	34.5	26.2	47.3

EAGLE PASS, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888												41.2	
1889	36.0	44.2			69.2		77.0	72.3	70.7		40.8	44.3	
1890	34.9	38.8	45.3	53.5	66.3	72.7	78.8	72.6	69.4				
Means	35.4	41.5			67.7		77.9	72.4	70.1			42.8	

FLORENCE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875											61.4	53.2	
1876	52.1	55.5	57.8	73.2	76.6	85.7	88.8	84.4	81.2	68.8	58.3	56.7	69.9
1877	54.7	60.7	65.2	66.1	71.8	87.3	93.8	93.0	85.5	71.2	55.9	53.9	71.6
1878	50.1	53.2	60.3	65.3	74.3	82.0	90.8	87.9	78.0	70.2	57.0	46.3	68.0
1879	48.2	56.1	62.8	66.6	76.7	87.6	90.4	88.7	83.1	69.5	55.9	48.4	69.5
1880	49.1	47.4	54.6	63.8	73.4	83.5	86.6	86.5	81.0	68.0	52.1	50.9	66.4
1881	45.7	54.7	54.7	68.0	74.8	83.4	87.9	84.5	77.5	67.4	52.4	52.2	66.9
1882	46.4	49.5	57.3	62.1	76.2	82.2							
1889	47.6	51.6	60.4	69.6	75.0	83.2	89.8	88.4	77.1	68.6	57.7	54.6	68.6
1890	49.4	55.0	60.0	68.0	76.2	82.2	91.2	84.4	82.6				
Means	49.2	53.7	59.2	67.0	75.0	84.1	89.7	87.6	80.5	69.1	56.3	52.0	68.6

Mean monthly and annual temperature for forty-nine stations in Arizona—Continued.

GOODWIN, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	45.3	53.1	......	65.0	......	......	......	......	......	70.0	......	44.5	......
1867	45.0	48.2	53.5	66.5	73.1	81.9	86.5	84.5	80.9	70.7	56.8	53.2	66.7
1868	44.7	49.4	54.7	64.4	72.0	81.7	86.8	82.0	76.3	67.0	51.0	42.2	64.4
1869	40.6	45.3	58.2	61.8	74.1	85.1	87.9	84.1	81.5	68.3	57.5	44.5	65.7
1870	47.5	53.2	58.7	69.6	80.2	......	......	......	......	......	......	......	......
Means	44.6	49.8	56.3	65.5	74.8	82.9	87.1	83.5	79.6	69.0	55.1	46.1	66.2

GRANT, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	49.7	51.9	62.3	61.9	70.4	81.6	88.0	78.4	75.5	63.8	51.3	47.4	65.2
1874	47.2	43.6	52.5	58.6	71.8	84.1	81.0	79.7	78.0	68.9	52.4	44.4	63.5
1875	44.6	46.5	47.1	59.4	76.4	79.6	78.0	79.8	73.0	73.0	56.8	50.8	63.8
1876	46.3	53.8	53.4	67.9	[70.4]	79.0	77.1	78.5	72.2	63.4	53.4	[47.0]	[63.5]
1877	47.0	47.9	54.2	55.0	64.3	78.7	82.3	85.7	77.2	61.8	53.8	44.3	62.7
1878	44.7	46.2	51.4	57.3	67.6	76.1	78.7	76.0	71.5	66.5	52.1	44.2	61.0
1879	45.1	52.9	60.7	61.2	69.7	76.1	79.9	79.2	75.9	62.0	49.4	45.9	63.2
1880	45.9	39.0	48.3	55.9	66.9	77.9	75.8	74.0	71.5	61.0	47.4	45.3	59.1
1881	41.3	49.4	49.9	62.5	68.3	78.1	75.8	71.7	67.4	61.6	45.6	45.6	59.8
1882	41.6	43.7	51.4	56.4	65.2	72.5	77.9	72.1	67.9	59.4	50.7	44.5	58.6
1883	40.5	53.9	52.2	55.7	64.5	77.7	75.1	73.8	71.7	58.2	50.0	45.1	59.0
1884	41.4	45.5	48.2	54.3	64.3	74.5	81.7	75.6	71.4	63.3	54.9	44.4	60.0
1885	41.1	45.8	53.1	57.8	65.5	71.6	77.7	75.4	72.4	65.1	54.1	47.8	60.6
1886	41.0	49.8	47.5	55.3	67.9	[75.0]	[81.0]	75.1	69.4	61.2	48.3	50.8	[60.2]
1887	46.7	45.3	57.8	56.8	66.7	76.4	76.2	74.7	70.6	61.9	53.6	39.4	60.5
1888	43.3	47.0	48.2	61.5	64.4	75.4	79.2	79.1	72.6	64.6	50.8	44.6	60.9
1889	40.0	45.4	51.8	62.6	68.6	75.6	78.8	80.0	70.2	64.6	50.2	51.6	61.6
1890	45.4	48.4	53.8	59.0	69.6	74.6	......	......	......	......	......	......	......
Means	44.0	47.0	52.4	58.8	67.9	76.9	79.1	77.0	72.3	63.5	51.5	46.1	61.4

GILA BEND, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	95.1	96.1	83.6	72.3	58.7	57.8	......
1890	50.6	55.9	64.0	73.3	84.0	89.8	95.8	88.4	86.9	......	......	......	......

OLD CAMP GRANT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	......	......	......	......	......	......	......	......	......	......	......	48.3	......
1861	43.1	51.2	60.0	70.2	78.1	85.5	......	......	......	......	......	......	......
1866	......	......	......	......	......	......	......	......	76.2	67.4	53.6	43.3	......
1867	44.5	47.8	51.6	61.7	76.1	86.0	90.8	87.0	[82.6]	73.2	60.7	59.8	68.4
1868	52.1	56.2	59.9	67.6	73.3	85.5	84.4	81.0	78.0	71.5	55.1	47.8	67.7
1869	47.6	49.6	61.2	65.3	77.2	85.9	87.3	82.2	80.0	70.8	64.6	48.2	68.3
1870	48.3	52.7	56.2	66.4	78.5	84.9	87.6	81.6	79.1	68.8	57.3	42.7	67.3
1871	45.9	48.6	57.8	63.3	76.8	86.9	87.0	90.1	86.9	72.6	58.0	51.2	68.8
1872	47.6	55.9	61.0	66.0	78.7	87.2	86.1	84.3	78.4	70.3	54.9	52.7	68.6
Means	47.0	51.7	58.2	65.8	77.0	86.0	87.2	84.9	80.2	70.7	57.7	49.1	68.0

HUACHUCA, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	41.8	50.1	49.8	56.5	70.6	76.0	80.0	75.0	68.9	62.4	54.4	49.4	61.2
1887	46.3	44.5	50.1	54.2	[70.0]	82.6	80.0	[76.0]	69.6	61.0	54.2	37.7	[60.5]
1888	44.8	47.6	49.0	63.1	67.2	77.6	71.5	75.8	72.4	65.9	50.7	44.8	60.9
1889	38.3	42.9	51.5	63.4	69.6	74.6	76.0	76.9	68.2	62.0	50.2	51.4	60.4
1890	42.1	43.8	[53.0]	60.1	71.2	75.0	......	......	......	......	......	......	......
Means	42.7	45.8	50.7	59.5	69.7	77.2	76.9	75.9	69.8	62.8	52.4	45.8	60.8

Mean monthly and annual temperature for forty-nine stations in Arizona—Continued.

HUACHUCA, MOUNT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	......	......	......	38.1	......
1889	32.2	41.4	51.3	60.3	......	......	......	80.8	69.6	65.2	52.9	54.8	......
1890	46.8	50.8	57.8	63.6	70.4	75.3	77.4	70.6	68.8	......	......	......	......

HUALPAI, CAMP, ARIZ.*

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	37.0	......	......	59.4	64.3	71.8	73.8	71.4	......	......	48.5	35.7	......
1871	40.6	39.7	49.0	51.7	64.2	77.7	77.8	76.0	66.0	54.8	42.9	40.4	56.7
1872	37.1	43.5	46.6	48.6	62.8	71.6	75.4	72.6	64.2	55.2	45.8	38.9	55.2
1873	39.3	34.0	49.1	52.6	60.7	73.8	......	......	......	......	......	......	......
Means	38.5	39.1	48.2	53.1	63.0	73.7	75.7	73.3	65.1	55.0	45.7	38.3	55.7

HOLBROOK, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	37.0	38.0	48.8	50.0	60.5	71.2	76.0	75.2	68.8	59.0	45.5	27.0	54.8
1888	27.5	41.2	42.8	57.8	61.8	72.0	77.5	74.8	72.7	60.6	46.9	38.0	56.1
1889	31.7	36.4	47.8	59.5	65.4	73.0	77.3	79.2	69.6	60.4	39.5	45.0	57.1
1890	33.7	41.0	47.6	55.2	62.4	67.0	77.6	73.6	66.2	......	......	......	......
Means	32.5	39.2	46.8	55.6	62.5	70.8	76.9	76.4	70.4	60.0	44.0	36.7	56.0

LOCHIEL, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	84.0	76.9	65.6	60.3	47.5	50.0	......
1890	44.3	46.0	52.8	......	......	75.6	75.2	70.5	69.2	......	......	......	......
Means	44.3	46.0	52.8	......	......	75.6	79.6	73.2	67.4	60.3	47.5	50.0	......

LOWELL, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	......	......	......	......	......	......	......	......	......	......	66.5	......	......
1867	51.0	45.7	54.4	[63.5]	78.5	85.6	87.3	85.6	84.7	76.4	65.2	59.7	[69.8]
1868	48.7	56.2	62.5	70.5	73.2	85.7	88.2	84.4	81.8	73.9	56.8	49.4	69.3
1869	46.6	48.6	59.8	66.0	76.1	88.6	89.0	82.9	78.9	68.6	59.0	47.6	67.6
1870	50.2	53.1	58.4	68.4	78.5	82.3	83.7	83.1	77.7	69.9	59.6	45.9	67.6
1871	51.8	51.1	58.0	62.3	78.3	89.3	87.5	86.6	85.1	72.4	58.0	55.3	69.6
1872	49.3	55.6	61.7	64.0	78.6	88.2	86.0	85.4	79.9	73.5	55.5	54.9	6[illegible].4
1873	51.8	53.0	65.1	68.1	77.1	87.7	90.9	81.9	80.1	70.8	59.9	48.9	69.6
1874	53.1	48.0	54.2	60.5	74.6	84.8	84.0	82.7	83.2	71.7	57.6	48.9	66.9
1875	47.8	51.8	56.0	69.3	81.7	89.2	85.7	87.3	81.3	77.0	59.2	47.4	69.5
1876	47.3	53.0	56.8	70.6	80.5	90.4	88.4	83.6	8[illegible].7	67.0	58.7	48.7	68.8
1877	50.5	56.5	63.2	64.5	74.7	87.9	92.6	90.2	80.3	65.2	52.1	47.0	68.7
1878	47.4	48.6	57.2	66.5	78.3	[86.2]	92.7	86.0	76.5	70.9	60.1	50.8	[68.4]
1879	51.4	57.3	62.0	69.0	78.8	89.7	88.1	86.7	81.7	66.6	53.6	5[illegible].4	69.6
1880	46.8	44.2	55.0	63.5	75.0	88.4	85.8	81.9	78.9	64.0	49.9	48.9	65.2
1881	43.5	53.4	56.0	69.4	77.0	87.3	8[illegible].4	82.7	77.0	67.0	51.0	49.9	6[illegible].7
1882	45.2	47.2	56.4	63.3	72.9	81.0	88.5	82.0	77.4	64.4	57.1	49.2	65.4
1883	42.3	47.8	55.9	62.2	......	......	......	......	......	66.4	58.5	49.8	......
1884	44.8	56.8	56.3	62.0	......	......	......	......	......	......	......	......	......
1886	[48.0]	......	56.7	65.3	80.2	......	90.1	86.4	81.1	68.8	53.8	53.1	......
1887	49.5	......	......	......	......	......	......	......	......	......	......	......	......
1889	40.9	[52.0]	58.6	65.2	71.5	81.2	86.6	86.4	76.3	68.8	56.2	56.6	[66.8]
1890	49.8	52.4	58.5	65.1	71.9	78.2	......	......	......	......	......	......	......
Means	48.1	51.6	58.2	65.7	76.7	86.2	87.9	84.8	80.1	69.6	57.4	50.7	68.1

* Formerly Fort Tollgate, name changed to Camp Hualpai, August, 1870.

Mean monthly and annual temperature for forty-nine stations in Arizona—Continued.

MCDOWELL, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	......	......	......	......	......	......	......	......	81.1	72.5	61.5	50.8	......
1867	51.5	51.1	56.0	70.7	80.0	90.7	94.9	92.0	88.8	74.3	61.5	58.8	72.5
1868	48.8	55.6	57.4	[66.8]	76.0	86.6	90.4	86.1	80.6	72.5	58.0	52.8	69.3
1869	48.7	51.5	62.7	69.6	77.8	90.5	94.1	90.8	85.3	73.8	61.6	52.5	71.6
1870	52.6	57.6	60.1	71.7	81.8	86.6	90.3	89.4	83.4	73.0	62.0	47.5	71.3
1871	51.2	52.7	59.4	67.8	83.2	91.5	93.1	91.4	85.8	73.4	58.8	52.2	71.7
1872	46.0	53.2	60.6	65.0	77.3	87.2	86.4	83.5	77.6	69.2	53.7	53.0	67.7
1873	50.6	50.1	61.7	64.1	76.4	88.7	95.0	88.3	85.0	71.5	64.8	52.4	70.7
1874	55.9	51.6	57.6	63.2	78.4	89.7	[92.9]	90.3	86.3	73.1	57.7	51.8	[70.7]
1875	49.1	53.0	55.7	67.0	81.0	89.7	90.3	89.1	83.5	76.1	58.6	51.2	70.4
1876	47.8	53.8	57.5	70.6	79.9	91.3	90.4	85.8	83.0	71.7	58.0	51.0	70.1
1877	52.1	57.8	65.7	66.2	74.1	[88.1]	96.6	94.0	82.1	69.2	56.0	50.3	[71.0]
1878	48.2	52.1	60.6	66.2	78.7	88.7	95.1	90.3	78.8	70.4	57.1	45.8	69.3
1879	48.4	60.4	68.4	72.8	80.1	90.2	96.3	96.2	88.2	72.6	56.5	50.4	73.4
1880	51.1	47.8	55.2	67.2	78.7	89.4	91.6	90.9	85.7	[70.0]	53.0	50.2	[69.2]
1881	46.3	53.9	58.2	71.9	79.5	88.7	92.3	87.7	81.1	69.2	54.1	52.5	69.6
1882	46.7	50.8	60.0	65.3	77.2	85.8	95.1	89.4	80.0	68.2	56.9	51.3	68.9
1883	46.7	53.0	62.6	65.7	76.4	91.8	90.8	90.3	84.6	65.8	57.5	50.6	69.6
1884	50.4	54.4	56.8	62.2	72.6	80.2	90.8	87.9	77.5	70.7	58.7	46.2	67.4
1885	47.6	52.0	62.9	67.0	76.1	83.4	92.1	91.8	82.2	72.3	58.6	49.6	69.6
1886	49.6	56.1	53.2	58.0	76.1	......	91.4	87.8	82.6	66.8	52.2	53.1	......
1887	47.6	51.0	63.3	66.0	76.0	86.4	91.3	88.8	84.4	69.8	58.0	43.7	68.9
1888	46.4	53.3	55.6	71.2	74.2	84.4	90.6	90.1	85.4	69.9	58.2	51.4	69.2
1889	46.2	51.8	59.4	67.8	74.8	84.8	91.6	93.0	81.4	70.4	56.4	55.8	69.4
1890	48.0	52.8	......	......	......	......	......	......	......	......	......	......	......
Means	49.1	51.0	57.0	67.1	77.7	83.9	92.3	89.8	83.1	71.1	57.9	51.0	69.0

MCPHERSON, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	......	......	......	......	68.2	78.2	81.1	82.1	79.3	61.9	52.1	50.1	......
1868	40.9	46.8	50.1	62.1	68.6	79.2	84.1	79.6	74.9	64.5	50.2	45.4	62.2
1869	44.5	44.3	54.6	59.3	71.1	84.2	85.3	82.9	75.9	62.2	54.1	43.8	63.5
1870	45.1	51.0	50.4	63.1	73.6	83.0	84.3	82.0	75.5	65.3	56.5	43.6	64.4
Means	43.5	47.4	51.7	61.5	70.4	81.2	83.7	81.6	76.4	63.5	53.2	45.7	63.3

MARICOPA, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	......	55.1	45.0	......
1876	42.9	50.7	57.4	71.9	79.0	88.8	92.4	86.4	83.3	72.1	61.5	51.3	69.8
1877	49.1	52.8	65.5	66.3	74.6	88.6	93.1	88.4	80.2	66.5	52.1	48.0	68.8
1878	45.0	50.8	......	......	......	......	......	......	......	......	......	......	......
1883	......	......	......	......	......	......	......	......	......	......	56.9	53.3	......
1884	50.6	52.7	56.4	61.3	74.1	82.5	93.6	88.5	79.8	72.1	60.6	52.2	68.7
1885	49.2	54.4	63.5	73.8	64.1	85.5	92.6	92.6	84.2	73.5	61.0	52.1	70.5
1886	51.6	58.8	57.6	65.5	83.0	87.2	96.2	92.8	84.6	69.0	54.6	55.2	71.3
1887	51.4	52.6	66.2	68.2	78.1	88.4	90.8			Discontinued.			
Means	48.5	53.3	61.1	67.8	75.5	86.8	93.1	89.7	82.4	70.6	57.4	51.0	69.8

MARICOPA, ARIZ.*

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	......	......	......	80.8	89.3	94.2	[92.2]	91.2	77.3	64.7	64 4	......
1880	64.7	[53.0]	68.4	69.7	79.2	[91.6]	93.3	91.8	89.9	73.0	65.8	53.1	[74.5]
1881	47.1	57.6	61.3	75.4	82.9	92.9	94.5	91.2	80.5	[73.0]	66.7	63.2	[73.9]
1882	58.9	59.4	65.3	70.0	77.9	85.6	98.3	90.2	82.4	67.9	56.8	48.3	71.8
1883	45.8	53.3	61.2	69.1	73.6	100.4	90.7	92.8	84.1	65.5	59.2	53.0	70.7
1884	48.0	55.8	59.5	68.1	81.9	89.6	93.7	89.9	79.5	71.9	59.3	55.9	71.1
1885	52.4	56.5	64.7	70.3	83.0	90.5	93.2	92.5	86.7	75.7	64.1	54.0	73.6
1886	53.4	62.4	63.0	70.1	86.8	93.2	98.9	94.2	88.3	70.7	56.4	53.7	74.3
1887	51.2	55.5	69.1	73.2	88.5	90.2	93.0	93.3	82.9	73.5	66.2	53.9	74.2
1888	65.5	61.3	64.4	77.9	87.2	91.6	94.1	93.7	88.4	71.2	[60.0]	56.3	[76.0]
1889	51 2	56.0	65.5	73.9	78.2	88.8	93.7	92.8	63.6	71.5	60.2	56.8	71.0
1890	58.8	58.6	65.3	74.9	84.8	95.1	......	......	......	......	......	......	......
Means	54.3	57.2	64.3	72.1	82.1	91.6	94.3	92.2	83.4	71.9	61.8	55.7	73.4

* Record of Pacific Railway system. Not consolidated with Signal Service record on account of difference of exposure of thermometers.

Mean monthly and annual temperature for forty-nine stations in Arizona—Continued.

MOHAVE, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1859	......	......	......	......	......	93.7	93.2	93.4	84.7	75.5	60.4	49.3	......
1860	49.8	55.3	66.7	72.8	77.6	87.6	94.2	96.5	87.2	74.9	60.3	53.9	73.1
1861	49.1	58.6	68.1	78.3	d83.4	......	......	......	......	......	......	......	......
1865	......	......	......	......	......	......	......	......	......	76.7	64.0	49.2	......
1866	52.1	58.9	62.8	71.5	82.6	......	......	......	8.30	73.2	59.5	54.3	......
1867	51.8	51.2	58.2	73.9	......	......	......	......	......	......	......	63.6	......
1868	51.8	58.9	64.9	74.7	77.2	86.8	93.4	90.3	86.4	76.5	62.6	56.4	73.3
1869	54.7	55.9	66.4	71.7	79.6	92.4	95.9	91.9	80.9	74.5	61.7	51.7	73.1
1870	56.2	56.1	61.2	72.7	81.9	89.5	95.8	93.0	83.0	72.6	63.8	49.6	73.0
1871	55.1	55.4	64.7	68.8	81.4	92.9	96.8	95.9	87.7	73.6	58.6	55.3	73.8
1872	50.2	56.8	61.3	65.2	80.5	88.5	91.7	90.9	83.7	73.1	55.4	51.4	70.8
1873	54.7	54.5	69.7	72.3	78.3	91.8	100.1	91.8	89.7	75.1	66.2	52.0	74.7
1874	56.4	53.3	62.1	72.2	83.4	92.4	99.2	96.2	90.1	78.0	62.5	54.6	75.0
1875	53.2	58.6	63.1	75.5	86.8	91.4	98.8	98.8	90.2	80.0	63.4	59.2	76.6
1876	51.0	59.7	63.9	76.8	84.1	95.3	97.2	92.3	81.8	74.1	61.1	53.4	74.2
1877	55.6	61.8	70.1	70.6	78.1	90.8	98.8	94.4	85.6	71.8	61.0	52.4	74.2
1878	54.0	58.0	65.1	71.6	81.2	89.1	96.2	95.9	83.6	73.0	60.2	51.7	73.3
1879	51.1	62.0	70.5	73.8	80.4	89.2	94.4	93.0	87.2	71.6	57.7	50.4	73.4
1880	51.1	51.1	58.0	69.5	79.1	87.8	92.9	90.5	83.8	71.2	53.4	53.8	70.2
1881	50.0	59.4	62.7	77.1	81.2	89.2	94.5	92.8	84.1	70.9	57.1	54.1	72.8
1882	45.8	50.2	62.6	69.0	80.5	87.2	97.3	96.2	85.1	70.6	59.8	56.2	71.7
1883	49.2	54.9	68.8	68.5	77.4	92.3	95.3	95.8	87.6	68.8	62.3	54.9	73.0
1884	51.7	52.5	58.6	67.3	77.0	85.5	93.4	92.2	[80.0]	73.3	65.6	51.9	[70.8]
1885	48.7	58.5	68.8	73.7	82.9	86.1	94.8	94.8	85.8	73.4	61.8	55.8	73.8
1886	53.4	61.9	59.4	68.8	83.4	88.9	96.2	94.6	88.3	68.5	55.0	[53.4]	[72.6]
1887	[52.0]	52.6	65.8	71.2	80.6	89.5	92.7	90.0	83.8	75.3	64.0	50.5	[72.2]
1888	46.4	57.0	60.7	73.5	75.6	84.3	90.1	[93.6]	88.2	72.5	57.2	49.4	[70.7]
1889	46.6	52.0	62.8	69.1	78.2	87.8	94.9	93.8	82.7	71.0	55.9	52.5	70.6
1890	44.0	52.8	58.7	70.0	78.4	83.4	......	......	......	......	......	......	......
Means	51.3	56.2	63.9	71.9	80.4	89.3	95.3	93.7	85.4	73.4	60.4	53.4	72.9

PANTANO, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	......	......	......	......	......	......	......	......	......	......	......	47.2	......
1881	41.2	50.6	53.6	68.4	80.7	88.7	83.0	[84.0]	78.4	72.0	54.8	51.5	[67.2]
1882	49.4	50.6	55.6	66.7	75.0	85.2	[85.0]	84.4	81.2	69.0	58.9	51.8	[67.8]
1883	44.8	50.5	62.2	65.4	73.0	86.4	86.2	80.5	79.1	66.0	61.7	52.8	67.4
1884	49.4	51.1	55.0	56.2	66.1	[85.5]	86.3	80.3	75.7	68.5	60.4	52.0	[65.6]
1885	50.7	53.4	60.3	66.0	75.8	80.3	81.7	84.2	81.2	73.3	63.2	53.3	68.9
1886	53.1	54.9	56.1	65.2	84.7	92.0	88.9	84.8	83.2	72.2	67.6	[50.0]	[71.1]
1887	[50.0]	[52.0]	74.7	68.9	[75.0]	83.3	84.7	83.4	81.2	73.0	61.6	43.7	[69.3]
1888	48.5	55.8	55.7	69.0	75.0	83.0	84.2	82.5	79.4	65.0	54.6	48.1	66.7
1889	40.2	42.3	56.2	68.5	76.3	83.1	86.6	87.2	70.5	65.0	55.2	53.8	65.4
1890	46.6	50.7	56.5	67.0	76.6	87.9	......	......	......	......	......	......	......
Means	47.4	51.2	58.6	66.1	75.8	85.5	85.5	83.5	78.9	69.3	59.8	50.4	67.7

NEW RIVER, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	57.8	59.2	70.7	[91.0]	90.4	78.2	68.5	......	......	......
1890	......	......	......	65.9	72.2	77.6	88.4	82.9	79.2	......	......	......	......

PHŒNIX, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	80.8	69.5	59.5	52.2	......
1877	51.9	58.4	66.8	68.3	70.3	83.8	92.7	90.6	80.4	67.7	54.3	50.6	69.6
1878	47.0	52.4	59.8	64.5	75.8	86.5	93.7	89.8	79.3	70.3	57.0	47.6	68.6
1879	49.2	58.6	66.0	68.3	75.0	84.3	90.8	89.1	85.0	71.0	56.9	51.0	70.4
1880	51.5	49.8	57.3	66.7	77.4	88.5	90.4	89.7	84.1	68.8	52.5	50.4	68.9
1881	45.5	55.4	58.4	69.3	75.6	82.9	87.7	85.1	77.1	66.5	51.7	51.5	67.2
1882	44.1	51.0	62.0	67.1	77.2	83.6	91.6	88.6	81.7	69.8	59.7	57.9	69.5
1883	47.0	52.1	64.5	62.1	71.3	85.4	89.0	[88.0]	h81.3	67.2	58.5	55.5	[68.5]
1884	50.6	52.5	54.5	63.0	71.2	89.6	87.7	83.7	73.6	72.1	61.6	51.9	66.8

***Mean monthly and annual temperature for forty-nine stations in Arizona*—Continued.**

PHŒNIX, ARIZ.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	50.2	54.8	59.9	65.0	68.9	71.6	82.3	83.1	79.3	70.6	56.3	53.5	66.3
1886	50.4	56.9	57.4	65.0	75.1	80.4	92.0	90.0	[84.0]	[67.0]	[54.5]	55.3	[69.0]
1887	51.7	53.8	69.2	69.6	78.9	87.2	......	......	......	......	......	......	......
1888	......	......	......	70.9	69.8	84.0	90.8	87.9	83.1	......	69.3	......	......
1880	......	......	......	......	78.6	86.3	92.6	91.6	80.4	70.9	57.0	56.1	......
1889	48.5	54.2	[61.0]	64.2	......	......	......	......	......	......	......	......	......
Means	49.0	54.2	61.4	66.5	74.2	83.4	90.1	88.1	80.9	69.3	57.6	52.8	69.0

PEORIA, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	47.0	51.6	60.1	69.2	76.5	84.8	91.9	92.6	82.0	70.2	55.6	54.0	69.6
1890	46.3	......	......	......	......	......	......	......	......	......	......	......	......
Means	46.6	51.6	60.1	69.2	76.5	84.8	91.9	92.6	82.0	70.2	55.6	54.0	69.6

RENO, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	47.8	49.2	62.5	68.5	78.8	89.6	91.4	88.1	85.4	71.4	61.2	48.2	70.2
1870	48.0	52.6	......	......	......	......	......	......	......	......	......	......	......
Means	47.9	50.9	......	......	......	......	......	......	......	......	......	......	70.3

SAN CARLOS AGENCY, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	......	......	......	......	80.6	86.7	80.7	72.7	62.6	44.2	44.2	......
1882	42.7	45.8	52.6	58.0	66.2	77.4	88.2	83.1	72.0	58.8	50.2	48.5	62.0
1883	49.2	56.6	66.3	67.9	68.2	78.4	81.5	83.3	78.2	64.1	51.7	48.6	66.2
1884	44.1	50.7	53.5	59.5	68.9	78.3	81.2	86.1	74.9	67.8	50.8	44.6	63.4
1885	38.4	48.0	58.3	[65.0]	70.9	77.1	87.3	85.9	78.0	63.8	53.8	45.0	[64.3]
1886	44.4	52.5	51.8	60.5	75.0	82.8	89.7	86.4	77.0	62.1	48.7	46.2	64.8
1887	42.3	47.1	59.6	62.6	72.6	83.3	86.0	84.0	74.6	65.9	[50.0]	40.4	[64.0]
1888	43.6	50.8	51.4	66.2	71.3	81.4	87.7	85.6	81.8	[65.0]	51.8	46.2	[65.2]
1889	42.0	45.8	54.0	65.5	72.1	82.4	87.2	83.8	71.9	63.3	49.0	49.4	63.9
1890	42.4	48.4	55.4	62.6	72.4	78.8	......	......	......	......	......	......	......
Means	43.2	49.5	55.9	63.1	70.8	80.0	86.2	84.3	75.7	63.7	50.0	51.6	64.5

SAN SIMON, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	......	......	......	......	......	......	......	......	......	......	46.9	......
1882	42.4	49.1	[58.0]	64.6	70.2	77.6	89.3	84.1	76.9	73.0	61.5	56.3	[66.9]
1883	44.6	48.7	57.9	62.9	[75.0]	85.0	80.7	83.1	76.4	68.7	60.5	55.0	[66.5]
1884	45.6	51.7	58.7	62.7	73.5	81.8	88.4	81.3	78.3	71.3	61.0	46.5	66.7
1885	41.3	46.7	57.8	66.0	75.1	81.4	85.3	81.2	[79.0]	[70.0]	60.0	[50.0]	[66.2]
1886	42.2	49.6	[56.0]	67.8	74.1	84.3	85.5	84.6	83.2	71.0	53.8	50.1	[66.8]
1887	44.5	50.2	57.4	64.0	75.9	86.2	85.5	85.4	81.2	71.2	50.5	42.0	66.2
1888	51.5	57.0	54.7	66.8	79.7	80.5	[85.0]	[84.0]	80.6	69.0	56.5	51.8	[68.1]
1889	44.5	47.0	50.5	63.7	75.0	79.8	81.8	81.5	74.7	[70.0]	[58.0]	57.1	[65.3]
1890	52.7	55.0	60.0	64.5	77.3	75.0	......	......	......	......	......	......	......
Means	45.5	50.6	56.8	64.8	75.1	81.3	85.2	83.2	78.8	70.5	57.7	50.6	66.7

SIGNAL, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	84.0	93.0	91.8	80.6	69.4	55.8	52.8	......
1890	45.5	51.4	58.2	66.2	69.9	80.7	92.1	87.4	82.9	......	......	......	......

***Mean monthly and annual temperature for forty-nine stations in Arizona*—Continued.**

TEXAS HILL, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	......	......	......	......	......	100.5	[92.0]	89.0	73.3	57.6	51.9	....
1880	51.9	[50.0]	61.7	73.9	84.6	93.6	98.0	95.5	88.4	75.3	57.1	55.4	[73.8]
1881	51.2	61.5	65.6	77.9	86.2	94.5	100.6	96.8	89.7	75.8	58.4	56.3	76.2
1882	51.2	55.3	64.0	73.0	83.5	91.1	102.1	97.8	[85.0]	73.5	60.8	55.7	[74.4]
1883	49.8	56.4	70.5	72.4	81.8	93.6	99.1	99.8	92.0	71.7	[60.0]	54.8	[75.2]
1884	52.5	57.5	62.3	69.4	80.2	88.9	96.9	93.6	84.7	73.8	61.2	51.6	72.7
1885	49.3	57.1	68.0	75.5	86.2	88.7	96.7	95.9	88.3	75.4	[62.0]	[55.0]	[74.8]
1886	53.5	60.8	61.7	70.2	87.2	93.2	97.3	96.5	87.5	69.9	57.3	56.5	74.3
1887	51.1	53.6	69.6	70.1	82.6	92.9	99.0	97.5	87.6	75.8	61.5	48.7	74.2
1888	49.4	59.2	62.2	78.9	86.1	90.3	100.9	97.9	91.9	77.0	63.4	51.7	75.7
1889	44.6	57.2	68.0	80.6	82.8	91.4	99.2	101.1	86.2	75.4	56.6	54.7	74.8
1890	46.7	47.8	64.3	73.1	83.4	89.0	......	......	......	......	......	......	....
Means	50.1	56.0	65.3	74.1	84.1	91.6	99.1	96.8	88.2	74.3	59.6	53.8	74.4

THOMAS, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	......	......	......	59.0	68.3	78.3	80.4	79.4	72.1	58.8	44.7	42.8	....
1881	37.8	48.1	50.9	64.3	71.0	80.7	81.9	78.7	71.0	55.7	44.4	43.5	60.7
1882	41.8	45.1	53.8	59.5	68.0	76.7	85.2	80.1	72.2	59.0	50.8	43.2	61.3
1883	40.2	46.3	56.4	58.0	67.9	81.7	82.3	81.4	75.7	58.9	48.6	45.5	61.9
1884	40.7	47.5	51.9	56.5	66.7	77.0	86.4	81.0	72.6	65.2	51.4	41.7	61.6
1885	39.7	46.0	55.8	60.6	69.2	75.8	83.3	81.5	75.1	61.7	51.2	42.8	61.9
1886	41.2	47.7	49.2	58.9	73.7	80.1	87.0	83.5	72.6	61.4	46.4	43.5	62.1
1887	42.6	47.4	58.8	60.9	73.5	83.6	85.2	83.6	76.4	63.8	49.6	39.5	63.7
1888	44.6	49.6	54.0	66.5	69.0	81.0	87.4	84.7	79.7	64.8	53.6	46.4	65.1
1889	42.4	45.9	55.5	65.1	71.4	83.2	87.8	87.2	75.4	65.2	48.0	50.3	64.8
1890	44.2	48.6	56.7	63.6	72.8	79.3	......	......	......	......	......	......	....
Means	41.5	47.2	54.3	61.2	70.1	79.8	84.7	82.1	74.3	61.4	48.9	43.9	62.4

TOMBSTONE, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	65.4	77.4	78.6	77.9	......	......	51.0	......	....
1890	46.8	49.4	......	......	71.8	78.2	79.7	75.6	73.5	......	......	......	....

TUCSON, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	......	57.8	50.7	....
1876	48.2	54.4	56.7	67.4	75.1	86.7	86.0	79.7	76.5	67.1	57.4	47.7	66.9
1877	49.9	52.2	61.3	59.8	69.6	84.4	88.8	87.8	79.1	69.7	54.7	49.4	67.2
1878	45.4	50.1	56.8	62.1	68.5	77.4	87.7	83.7	77.0	71.9	56.3	47.4	65.4
1879	49.5	58.3	65.5	66.5	75.2	82.9	85.7	85.3	83.2	68.8	56.2	50.7	69.0
1880	51.1	47.2	54.2	63.9	76.5	86.6	86.0	83.6	80.8	69.9	56.7	52.3	67.4
1881	45.8	55.8	57.2	69.0	75.5	84.6	83.8	82.1	76.8	68.2	53.6	52.9	67.1
1882	48.5	50.0	58.0	63.4	72.8	80.2	86.6	81.3	77.0	61.6	56.9	51.5	65.9
1883	46.8	52.0	60.5	62.9	70.8	90.9	98.0	95.1	81.5	70.7	57.0	56.4	70.2
1884	49.7	63.0	65.2	71.8	75.5	85.8	92.4	85.2	83.4	74.7	64.4	54.2	72.1
1885	49.2	[55.0]	66.3	75.4	79.1	87.4	93.4	91.1	87.8	76.5	64.8	52.1	[73.2]
1886	41.1	54.3	51.2	61.4	80.5	87.3	88.7	93.5	84.4	72.1	58.8	58.8	69.3
1887	52.1	52.1	67.0	70.1	87.9	91.1	90.9	89.0	86.2	81.4	67.1	54.6	74.1
1888	62.7	†70.4	69.9	68.0	78.5	92.6	95.6	94.0	89.2	75.0	64.3	62.1	76.9
1889	57.4	54.7	60.9	67.7	70.3	†73.5	†73.8	93.5	80.4	76.1	55.1	50.7	67.8
1890	50.7	51.6	60.3	67.2	78.5	94.4	......	......	......	......	......	......	....
Means	49.9	54.7	60.7	66.4	75.6	85.7	88.4	87.5	81.7	71.9	58.7	52.8	69.5

VERDE, FORT, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	......	......	......	......	......	......	......	......	......	......	66.5	......	....
1868	......	56.2	......	......	......	......	......	......	......	......	......	45.2	....
1869	44.2	46.0	55.5	59.7	70.1	81.8	89.5	78.6	77.2	61.0	49.0	40.9	62.8
1870	44.9	50.9	51.4	63.6	73.0	79.8	83.2	80.5	74.2	63.3	54.1	38.8	63.1

***Mean monthly and annual temperature for forty-nine stations in Arizona*—Continued.**

VERDE, FORT, ARIZ.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	45.1	45.3	53.9	65.3	71.9	85.9	89.2	86.9	76.9	60.8	47.2	44.0	64.4
1872	39.8	48.3	58.7	63.9	75.2	80.6	85.1	80.6	74.8	64.1	46.2	43.5	63.4
1873	42.2	43.5	59.1	61.6	69.9	80.2	86.8	81.2	75.7	62.0	49.8	39.3	62.6
1874	40.8	40.3	51.2	57.5	70.2	81.1	82.3	82.5	75.7	61.0	46.0	40.7	60.8
1875	40.3	43.5	48.6	61.8	73.4	82.6	[83.2]	78.2	73.3	65.9	48.4	44.1	[61.9]
1876	38.8	45.0	47.4	62.2	72.8	81.3	77.0	76.6	76.9	65.6	53.7	43.7	61.8
1877	43.7	50.8	64.1	56.5	64.6	78.4	84.8	84.2	74.1	59.8	48.9	42.4	62.7
1878	41.2	47.6	54.3	58.5	[69.5]	77.9	84.8	82.1	71.6	61.2	48.4	37.6	[61.2]
1879	39.8	50.2	59.1	61.4	70.6	77.0	80.1	82.8	76.6	61.2	46.6	40.5	62.2
1880	39.9	38.5	48.6	57.5	67.7	76.5	79.3	78.0	72.0	58.3	42.7	41.7	58.4
1881	38.1	46.8	48.7	64.0	69.7	78.1	83.1	78.6	69.5	60.2	43.6	42.7	60.3
1882	35.1	42.3	51.8	57.5	67.3	76.1	83.0	80.5	71.3	57.5	47.0	41.4	59.2
1883	39.3	45.5	55.2	56.6	66.2	80.0	80.0	80.4	74.6	[62.0]	48.1	45.6	[61.1]
1884	39.8	46.0	50.8	55.7	65.6	73.8	81.3	79.5	70.7	64.2	51.0	37.2	59.6
1885	39.3	46.5	54.2	61.8	69.0	73.3	83.3	81.3	74.1	63.9	52.4	45.8	62.1
1886	42.2	50.0	48.4	55.8	70.0	75.0	84.6	79.7	72.4	60.8	45.5	45.4	60.8
1887	40.0	46.0	57.0	58.4	66.7	76.6	80.4	79.8	72.9	61.7	49.6	38.7	60.6
1888	37.6	48.8	49.7	63.4	66.4	75.2	83.4	80.2	76.6	63.3	51.0	44.2	61.6
1889	38.5	42.5	52.2	60.8	69.2	76.3	83.3	84.2	73.6	63.1	47.7	48.6	61.7
1890	41.8	46.2	52.2	60.5	69.6	74.4	......	......	......	......	......	......	......
Means	40.6	46.4	53.3	60.2	69.5	78.3	83.2	80.8	74.0	61.9	49.2	42.4	61.6

WALLEN, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	......	......	......	......	......	......	......	......	......	......	48.1	43.2	......
1867	47.4	42.9	52.5	61.4	[67.5]	76.9	80.7	76.5	73.5	62.8	52.9	52.9	[62.3]
1868	44.4	49.3	52.7	61.0	66.3	77.5	77.6	72.9	69.8	64.5	55.9	49.5	61.8
1869	42.8	47.4	57.2	59.5	68.8	77.9	77.8	75.4	71.8	[63.6]	[52.3]	[48.5]	[61.9]
Means	44.9	46.5	54.1	60.6	67.5	77.4	78.7	74.9	71.7	63.6	52.3	48.5	61.7

WHIPPLE BARRACKS (PRESCOTT), ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1865	40.2	37.8	42.7	48.2	70.5	75.7	74.0	71.0	66.5	57.3	42.9	24.7	54.3
1866	27.4	39.3	43.5	53.2	......	......	......	......	65.6	56.2	47.0	43.7	......
1867	41.6	39.2	41.8	53.0	65.6	79.2	79.7	74.2	66.5	56.5	47.4	44.2	57.4
1868	33.3	38.1	39.9	51.1	66.3	61.6	67.8	69.6	63.8	54.0	40.3	32.8	51.8
1869	32.0	38.9	......	......	......	......	......	......	......	58.2	45.2	34.0	......
1870	38.0	41.9	43.6	56.4	63.0	68.9	72.9	69.1	61.4	52.9	46.9	33.2	54.0
1871	40.7	43.5	50.1	50.5	62.7	71.8	77.1	76.4	68.2	56.2	43.8	41.8	56.9
1872	35.8	42.7	47.2	49.6	63.8	72.8	75.0	72.5	68.7	57.6	45.0	40.2	55.9
1873	39.1	36.4	51.2	53.6	60.3	72.9	79.1	73.1	69.0	55.7	46.7	35.1	56.0
1874	38.6	35.5	41.5	49.5	60.9	72.0	74.3	73.8	67.4	55.2	......	......	......
1875	......	......	......	......	68.5	76.5	75.7	75.3	70.3	62.2	48.4	40.9	......
1876	31.2	30.4	33.7	43.5	51.4	66.7	71.6	65.1	59.3	50.5	42.9	39.0	48.8
1877	24.4	38.6	44.7	[50.6]	51.9	65.1	75.8	73.7	66.1	53.7	41.7	34.5	[51.7]
1878	33.0	39.3	45.0	49.3	59.0	67.0	75.8	71.8	61.4	53.3	40.8	31.7	52.3
1879	31.7	44.0	50.5	53.0	59.5	68.2	73.7	73.2	70.1	54.5	42.4	35.8	54.7
1880	35.4	29.0	40.4	49.3	58.0	67.0	69.8	69.3	62.5	51.7	37.0	38.1	50.6
1881	35.1	41.1	40.6	54.7	58.7	67.4	72.0	68.4	61.4	52.9	38.4	39.7	52.5
1882	30.4	33.6	43.2	48.4	57.3	65.9	72.9	69.7	61.6	50.5	41.6	38.2	51.1
1883	34.5	37.6	47.4	47.9	56.5	69.0	70.4	70.1	64.5	49.9	42.5	40.1	52.5
1884	37.0	38.5	40.8	45.4	54.7	62.8	71.9	68.1	60.5	53.5	43.4	33.6	50.8
1885	32.8	40.2	46.0	51.6	59.0	63.5	73.2	70.8	64.9	54.9	44.3	38.8	53.3
1886	35.4	42.0	38.7	46.7	61.9	67.4	74.0	71.2	64.3	51.2	36.1	40.5	52.4
1887	37.4	37.5	49.9	49.7	59.3	69.5	72.5	71.1	65.5	54.4	44.7	31.7	53.6
1888	27.5	40.5	41.0	55.3	58.6	68.4	74.2	70.1	67.6	55.9	43.8	37.9	53.4
1889	28.4	34.2	44.0	53.4	59.2	66.6	74.6	73.4	63.6	54.4	42.8	42.2	53.1
1890	32.9	39.2	45.2	51.6	59.2	63.6	......	......	......	......	......	......	......
Means	34.2	38.4	43.9	50.6	60.2	68.9	73.8	71.3	65.0	54.5	43.2	37.2	53.4

Mean monthly and annual temperature for forty-nine stations in Arizona—Continued.

WICKENBURGH, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	......	53.2	50.4	......
1876	46.5	50.6	58.7	......	......	......	......	......	77.6	67.1	56.0	45.6	......
1877	46.4	52.0	59.4	58.7	66.9	84.7	91.4	86.9	76.6	59.4	49.5	42.2	64.5
1878	41.6	45.7	53.2	58.7	68.0	75.5	84.2	84.8	71.8	61.9	52.0	42.3	61.6
1879	43.2	53.3	59.6	63.9	[69.0]	78.2	85.6	84.8	74.7	63.3	49.2	43.7	[64.0]
1880	44.7	40.6	47.7	57.1	69.7	78.9	76.2	81.9	75.6	63.2	48.2	44.4	60.7
1881	40.4	46.5	51.5	64.5	70.5	78.7	84.8	80.0	71.1	60.7	47.3	47.2	61.9
1882	42.5	44.6	52.5	58.0	......	......	......	......	......	......	......	......	......
1883	......	......	......	59.5	69.4	80.7	84.7	†85.7	[75.0]	60.8	55.0	50.3	......
1884	47.1	50.2	52.6	57.9	66.8	72.8	85.8	83.4	74.6	66.4	56.5	46.7	63.4
1885	45.8	51.6	60.1	62.9	70.8	75.1	85.9	87.2	78.2	69.1	55.5	53.4	66.3
1886	49.0	......	......	......	......	......	......	......	......	......	......	......	......
Means	44.7	48.3	55.0	60.1	68.9	78.1	84.8	84.3	75.0	63.5	52.2	46.6	63.5

WILLCOX, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	......	......	......	......	......	......	......	......	......	65.6	57.2	38.7	......
1881	[41.0]	50.2	61.1	70.8	70.7	[75.3]	87.2	84.5	[71.0]	63.1	45.3	46.3	[63.9]
1882	43.3	44.7	54.2	63.5	72.6	[75.3]	87.2	81.8	71.8	59.4	50.1	45.0	[62.4]
1883	38.3	43.2	51.3	60.4	74.0	86.2	84.7	79.5	74.8	60.8	47.8	47.6	62.4
1884	46.0	43.2	43.4	47.1	56.5	71.7	82.5	77.2	70.3	61.8	49.5	45.6	57.9
1885	42.8	50.4	55.0	59.1	66.2	72.0	80.0	78.3	71.4	60.8	51.1	44.2	60.9
1886	41.8	48.4	48.4	55.8	70.8	75.6	83.9	81.4	70.4	60.4	48.2	45.8	60.9
1887	40.8	45.0	54.0	55.0	64.1	74.6	78.3	77.8	71.6	61.1	49.7	37.9	59.2
1888	43.1	47.4	46.0	61.6	64.5	73.8	78.5	76.3	71.5	61.6	44.8	44.0	59.4
1889	40.1	43.5	51.2	60.2	67.0	75.4	79.7	79.4	67.8	60.6	46.4	49.2	60.0
1890	43.9	46.7	53.6	59.5	66.8	72.9	......	......	......	......	......	......	......
Means	42.1	46.3	51.8	59.3	67.3	75.3	82.4	79.6	71.2	61.5	49.0	44.4	60.8

WILLOW GROVE, CAMP, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	[36.6]	39.2	42.2	51.0	57.0	68.8	74.8	71.9	67.6	58.0	44.1	41.5	54.4
1869	36.6	38.2	45.9	51.5	61.6	73.5	77.3	74.4	70.4	[58.0]	[44.1]	[41.5]	56.1
Means	36.6	38.7	44.0	51.2	59.3	71.2	76.0	73.2	69.0	58.0	44.1	41.5	55.2

WILLIAMS, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	65.4	60.9	48.3	39.3	32.7	......
1889	24.6	19.1	38.4	47.8	52.2	61.4	67.5	63.8	50.2	51.2	32.3	38.9	45.6
Means	......	......	......	......	......	......	......	64.6	55.6	49.8	35.8	35.8	46.0

WINSLOW, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	e78.0	69.8	55.9	43.7	35.6	......
1889	......	......	44.4	53.6	......	80.8	78.4	75.6	70.6	61.8	41.2	39.9	......
1890	39.9	......	......	......	......	......	......	......	......	......	......	......	......
Means	......	......	......	......	......	......	......	76.8	70.2	58.8	42.4	37.8	......

YUMA, ARIZ.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	76.8	63.0	57.3	......
1876	50.9	59.5	61.9	72.7	81.8	89.3	93.9	90.3	86.3	77.0	65.4	59.3	74.0
1877	60.3	65.0	71.8	68.4	*75.3	88.7	94.0	92.7	83.3	71.4	58.5	54.5	73.7

* Fourteen days.

***Mean monthly and annual temperature for forty-nine stations in Arizona*—Continued.**

YUMA, ARIZ.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	54.8	59.6	64.6	66.7	76.8	85.1	93.3	91.6	83.0	73.4	62.0	53.4	72.0
1879	53.1	63.7	70.5	71.8	77.7	85.5	92.0	92.5	87.7	72.8	59.9	52.8	73.3
1880	55.2	52.2	58.3	67.5	76.6	85.6	89.6	90.0	83.2	71.2	56.7	56.1	70.2
1881	52.3	62.1	63.5	72.6	78.1	84.8	91.9	88.6	82.7	70.4	58.3	57.0	71.9
1882	50.2	54.4	62.3	67.1	77.2	83.0	93.0	92.0	82.7	69.6	59.5	58.0	70.8
1883	51.7	55.6	67.3	67.1	74.4	87.3	92.1	91.0	85.7	66.7	61.4	[56.0]	[71.4]
1884	54.6	57.3	60.9	67.4	75.3	81.7	90.6	88.9	80.0	71.7	63.3	53.0	70.4
1885	52.6	59.8	67.2	70.7	78.2	81.2	89.1	90.5	84.7	74.7	63.3	57.5	72.5
1886	55.0	62.7	60.5	67.4	80.1	84.0	90.8	89.6	84.2	67.4	57.8	59.3	71.6
1887	55.6	56.1	69.9	69.8	77.2	85.9	92.0	90.9	84.7	75.8	63.9	53.1	72.9
1888	51.6	60.5	62.5	75.3	76.9	85.6	91.4	91.0	89.2	74.9	61.9	57.0	73.2
1889	53.4	58.8	65.6	73.5	77.6	85.6	92.0	92.6	83.8	72.6	62.0	58.2	73.0
1890	51.4	58.4	64.8	71.2	78.0	83.8	......	......	......	......	......	......	......
Means	53.5	59.0	64.8	69.9	77.4	85.1	91.8	90.9	84.4	72.4	61.1	56.2	72.2

Appendix No. 10.

AVERAGE DAILY AND HOURLY WIND MOVEMENT AT FIVE STATIONS IN ARIZONA.

PHŒNIX, ARIZ.

[1879 to 1881 inclusive. Local time, which is 2 hours and 28 minutes slower than 75th meridian.]

Month.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10. am.	11 a.m.	Noon.	1 p. m.
Jan	2.0	1.9	2.2	2.5	2.4	2.3	2.0	2.2	2.7	2.7	2.8	2.8	2.8
Feb	2.2	2.1	2.3	2.2	2.2	2.3	2.2	2.4	2.4	2.9	3.2	3.6	4.0
Mar	1.7	1.6	1.8	1.9	1.9	1.9	1.9	2.3	2.7	2.8	3.0	3.2	3.3
Apr	1.8	2.0	2.0	2.0	2.0	2.0	2.1	2.9	3.0	3.3	3.5	4.0	4.4
May	1.2	1.5	1.8	2.0	2.0	1.8	1.9	1.9	2.1	2.0	2.6	3.2	3.6
June	1.4	1.4	1.5	1.8	1.9	2.0	2.1	2.4	2.3	2.2	2.6	3.0	3.5
July	2.0	2.1	1.7	1.7	1.7	1.8	2.0	2.2	2.5	2.3	2.7	3.1	3.4
Aug	1.8	1.7	1.8	1.6	1.4	1.5	1.4	1.9	2.2	2.2	2.6	2.7	3.2
Sept	1.2	1.4	1.3	1.5	1.7	1.5	1.6	1.9	2.4	2.5	2.3	2.1	2.3
Oct	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.7	2.2	2.5	2.5	2.9	2.8
Nov	1.6	1.7	1.6	1.7	1.6	1.7	1.4	1.6	2.1	2.5	2.9	2.9	3.3
Dec	1.7	1.8	1.9	1.9	1.9	2.0	1.8	2.0	2.2	2.7	2.5	2.8	2.6
Means	1.68	1.72	1.78	1.86	1.85	1.86	1.83	2.12	2.40	2.55	2.77	3.02	3.27

Month.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p.m.	9 p.m.	10 p. m.	11 p. m.	Mid-night.	Average.	
												Daily.	Hourly.
Jan	2.8	3.0	2.9	2.4	1.5	1.6	1.6	1.6	1.8	1.8	2.0	54.0	2.2
Feb	4.5	4.6	4.4	4.2	3.0	2.5	2.6	2.0	2.0	2.0	2.2	68.0	2.8
Mar	3.6	4.0	4.0	3.6	2.6	1.8	1.4	1.3	1.7	1.4	1.6	57.1	2.4
Apr	5.1	5.3	5.7	5.4	4.7	2.7	2.5	2.3	2.0	2.1	2.1	75.3	3.1
May	4.4	5.0	5.3	5.1	4.4	2.4	1.9	1.8	1.4	1.4	1.3	62.2	2.6
June	4.3	4.9	5.3	5.3	5.0	3.0	2.1	2.0	1.6	1.6	1.3	64.3	2.7
July	3.9	4.1	4.3	4.4	4.2	3.1	2.6	3.0	2.9	2.3	2.1	66.3	2.8
Aug	3.3	3.6	3.4	3.3	3.2	2.2	2.0	2.2	1.9	2.0	2.0	55.0	2.3
Sept	2.8	2.8	2.7	2.3	1.4	1.1	1.2	1.0	1.0	1.0	1.0	41.9	1.7
Oct	3.0	3.1	2.9	2.2	1.3	1.0	1.0	1.0	1.1	1.4	1.7	44.9	1.9
Nov	3.1	3.1	2.8	1.7	1.3	1.0	0.9	1.1	1.5	1.6	1.8	46.6	1.9
Dec	2.8	2.7	2.3	1.4	1.1	1.1	1.0	1.1	1.4	1.6	1.6	45.6	1.9
Means	3.63	3.85	3.83	3.44	2.81	1.96	1.73	1.70	1.69	1.68	1.72	56.77	2.37

FORT GRANT, ARIZ.

[1883 to 1889 inclusive. Seventy-fifth meridian time.]

Month.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.
Jan	6.7	6.4	6.3	5.9	5.9	5.7	5.6	5.3	5.3	5.0	4.5	5.2	6.3
Feb	7.3	6.9	6.6	6.4	6.4	5.9	5.7	5.8	5.5	5.4	5.5	6.6	7.7
Mar	6.5	6.0	5.8	5.7	5.5	5.6	5.4	5.1	4.7	4.4	5.1	6.3	7.9
Apr	6.5	6.1	5.8	5.7	5.4	5.2	5.1	4.8	4.3	4.7	6.0	7.3	8.2
May	6.1	6.1	6.0	5.8	5.8	5.9	5.7	5.4	4.9	4.9	5.9	7.2	8.3
June	6.2	6.2	5.9	5.7	5.8	5.4	5.2	4.7	3.8	4.3	5.1	6.0	7.1
July	5.7	5.2	4.9	4.7	4.3	4.0	3.7	3.4	2.9	3.2	3.8	4.8	5.9
Aug	5.3	4.9	4.8	4.6	4.4	4.4	4.0	4.3	3.6	3.7	4.4	5.1	6.2
Sept	6.9	6.4	6.4	6.1	5.8	5.7	5.7	5.4	5.1	5.0	6.0	7.1	8.2
Oct	6.7	6.6	6.4	6.0	5.8	5.4	5.2	5.1	4.7	4.4	5.6	6.9	8.2
Nov	6.8	6.4	5.8	5.7	5.4	5.1	5.0	5.1	4.9	4.4	5.0	6.2	7.4
Dec	6.2	5.7	5.7	5.4	5.5	5.9	5.7	5.4	5.4	5.3	5.4	6.1	7.0
Means	6.41	6.08	5.67	5.64	5.50	5.35	5.17	4.98	4.59	4.56	5.19	6.23	7.37

Average daily and hourly wind movement at five stations in Arizona—Continued.

FORT GRANT, ARIZ.—Continued.

Month.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Mid-night.	Average.	
												Daily.	Hourly.
Jan	6.7	7.5	8.2	8.7	8.9	8.5	7.2	6.8	6.9	7.0	6.9	157.5	6.6
Feb	8.8	9.6	10.2	10.7	10.9	9.9	8.7	7.3	7.3	7.0	7.0	179.0	7.5
Mar	8.7	9.4	9.8	10.2	10.4	10.1	9.0	7.2	6.8	6.6	6.5	168.5	7.0
Apr	9.2	10.4	11.2	11.8	12.5	12.3	11.5	9.2	7.3	6.6	6.6	183.7	7.7
May	8.9	9.6	9.7	10.3	10.4	10.6	10.6	9.3	6.7	6.3	6.2	176.7	7.4
June	8.0	8.5	9.3	9.6	10.5	10.6	10.7	10.0	7.6	6.6	6.4	169.1	7.0
July	6.7	7.5	8.2	8.3	9.0	9.2	9.2	8.8	7.3	6.6	6.4	143.7	6.0
Aug	7.0	7.7	8.0	7.8	8.2	8.1	7.6	6.8	6.4	5.8	5.4	138.5	5.8
Sept	9.0	9.2	9.5	9.7	9.5	8.9	8.3	6.9	6.9	7.1	7.2	172.2	7.2
Oct	8.5	8.9	9.1	9.2	9.1	8.8	7.2	6.8	6.9	7.0	6.9	165.3	6.9
Nov	8.0	8.4	8.3	8.6	8.5	7.9	6.9	7.1	7.2	7.3	7.0	158.2	6.6
Dec	7.7	8.2	8.4	8.6	8.4	7.6	6.6	6.7	6.8	6.8	6.5	157.1	6.5
Means	8.10	8.74	9.16	9.46	9.69	9.38	8.62	7.74	7.01	6.72	6.58	164.12	6.84

WHIPPLE BARRACKS, ARIZ.

[1883 to 1889 inclusive. Seventy-fifth meridian time.]

Month.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.
Jan	3.9	4.0	3.8	3.6	3.7	3.5	3.6	3.8	3.9	3.9	4.0	4.5	6.6
Feb	5.2	5.2	5.0	5.0	4.9	4.9	4.6	4.4	4.1	4.0	4.3	5.9	8.4
Mar	4.9	4.3	4.1	3.9	3.7	3.8	3.8	3.4	3.4	3.4	4.2	6.7	9.4
Apr	5.5	5.4	5.1	5.1	4.8	4.2	4.0	3.8	3.6	4.5	7.7	10.7	12.4
May	4.8	4.6	4.3	4.0	3.7	3.4	3.3	3.0	2.8	4.2	7.8	10.9	12.3
June	4.2	3.9	3.4	3.4	3.0	2.6	2.4	2.4	2.3	3.6	7.9	10.4	13.1
July	4.6	4.3	3.7	3.6	3.4	2.8	2.5	2.2	1.9	2.6	4.8	7.3	9.1
Aug	3.9	3.8	3.3	3.4	3.2	3.0	2.8	2.6	2.2	2.2	3.7	6.4	8.0
Sept	3.6	3.2	3.1	2.7	2.8	2.7	2.6	2.5	2.5	2.3	4.1	7.8	9.5
Oct	3.8	3.4	3.3	3.3	3.1	3.0	2.9	2.8	2.7	2.5	3.8	6.8	9.7
Nov	3.4	3.3	3.3	3.3	3.4	3.2	3.1	3.1	3.3	3.3	3.3	4.6	7.0
Dec	4.9	4.8	4.8	4.5	4.5	4.5	4.4	4.4	4.4	4.5	4.4	5.2	7.1
Means	4.39	4.18	3.93	3.82	3.68	3.47	3.33	3.20	3.09	3.42	5.00	7.27	9.38

Month.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Mid-night.	Average.	
												Daily.	Hourly.
Jan	8.5	9.6	9.5	9.9	9.3	8.3	6.6	5.3	4.7	4.3	4.1	132.9	5.5
Feb	10.2	11.1	11.5	12.2	12.4	11.9	10.4	8.1	6.8	6.4	5.8	172.7	7.2
Mar	10.5	11.4	12.2	12.6	12.7	12.7	11.6	9.1	7.0	6.1	5.6	170.8	7.1
Apr	13.5	14.3	14.7	15.4	15.7	15.3	14.4	12.4	8.7	7.3	6.1	214.8	9.0
May	13.5	14.5	15.0	15.5	15.8	15.4	14.7	12.9	8.6	6.1	5.2	206.0	8.6
June	14.5	15.3	16.1	16.7	17.0	16.5	15.7	14.0	9.6	6.4	4.7	210.0	8.8
July	10.1	11.0	12.0	12.9	12.7	12.6	12.0	10.6	7.9	5.8	5.0	165.3	6.9
Aug	9.1	9.9	10.9	11.3	11.7	11.4	11.3	9.0	6.5	5.2	4.3	148.7	6.2
Sept	10.3	10.9	11.6	11.6	11.5	11.2	10.3	7.7	5.4	4.3	4.0	148.1	6.2
Oct	10.9	11.6	11.9	11.7	11.8	11.2	9.1	6.7	5.3	4.7	4.0	150.1	6.3
Nov	8.9	9.5	9.9	10.1	9.9	8.9	6.6	4.9	4.3	3.9	3.7	128.1	5.3
Dec	8.7	9.6	9.9	10.1	9.5	8.1	6.6	5.8	5.0	4.7	4.7	144.9	6.0
Means	10.72	11.56	12.10	12.50	12.50	11.96	10.78	8.88	6.65	5.43	4.77	166.03	6.92

Average daily and hourly wind movement at five stations in Arizona—Continued.

FORT APACHE, ARIZ.

[1883 to 1887 inclusive. Seventy-fifth meridian time.]

Month.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.
Jan*	4.6	4.5	4.2	4.1	3.8	3.7	3.5	3.2	3.2	3.1	3.1	3.4	4.5
Feb*	4.6	4.4	4.3	4.0	4.0	3.7	3.8	3.7	3.9	3.9	3.9	4.7	6.5
Mar*	5.0	4.5	4.4	4.7	4.4	4.5	4.2	4.0	3.9	3.6	3.8	5.8	8.6
Apr	5.6	4.9	4.9	4.5	4.6	4.5	4.3	4.1	4.0	4.5	5.1	8.3	11.3
May	5.1	4.5	4.0	3.9	4.0	4.1	3.9	3.7	3.7	3.6	4.7	8.5	11.2
June	5.1	4.6	4.2	3.9	3.9	3.7	3.6	3.3	3.3	3.0	3.8	7.5	9.7
July	4.5	4.2	4.2	4.0	3.6	3.5	3.3	3.3	3.2	2.8	2.7	4.7	6.5
Aug	4.3	4.3	3.9	4.0	3.8	3.6	3.5	3.3	3.0	2.9	2.6	4.0	6.1
Sept	4.4	4.2	4.0	4.0	3.8	3.6	3.5	3.6	3.4	3.5	3.5	5.0	7.9
Oct	4.9	4.5	4.6	4.2	4.2	3.9	3.7	3.7	3.7	3.5	3.7	5.2	8.3
Nov	4.2	4.3	3.8	3.8	3.5	3.0	3.0	3.1	2.8	2.7	2.4	3.0	5.7
Dec	4.0	3.8	3.8	3.6	3.6	3.4	3.7	3.7	3.5	3.7	3.5	3.4	5.0
Means	4.69	4.39	4.19	4.06	3.93	3.77	3.67	3.56	3.47	3.40	3.57	5.29	7.61

Month.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Mid-night.	Average.	
												Daily.	Hourly.
Jan*	6.4	7.9	9.1	9.5	9.5	8.7	6.3	4.9	4.9	5.0	4.7	125.7	5.2
Feb*	9.0	10.2	10.9	11.4	11.3	10.9	9.1	6.0	5.1	5.1	4.8	149.7	6.2
Mar*	10.1	11.4	11.7	12.5	12.5	11.9	10.7	7.8	5.4	5.2	5.2	166.1	6.9
Apr	12.9	14.3	15.3	15.9	16.0	15.9	14.6	11.4	6.2	4.9	5.5	203.5	8.5
May	12.3	13.4	13.9	14.7	15.0	14.7	13.8	11.9	6.5	4.4	5.5	191.2	8.0
June	11.3	12.5	13.5	14.4	14.6	14.2	13.4	11.8	7.9	4.5	4.9	182.3	7.6
July	8.0	9.1	10.2	10.6	10.5	10.4	9.8	8.9	6.5	4.5	4.7	143.8	6.0
Aug	7.3	8.7	9.9	10.2	9.6	9.2	8.3	6.9	5.5	4.9	4.7	134.4	5.6
Sept	9.6	10.9	11.0	11.2	10.5	10.3	8.9	6.0	4.7	5.1	4.9	147.2	6.1
Oct	9.7	10.6	10.8	11.3	10.9	10.4	8.3	4.9	5.2	5.6	5.3	150.8	6.3
Nov	7.9	9.2	10.0	10.2	10.1	8.6	5.5	4.7	4.9	4.8	4.4	125.6	5.2
Dec	6.6	8.0	8.9	9.3	9.1	7.3	5.2	5.1	5.1	4.9	4.6	122.6	5.1
Means	9.26	10.52	11.27	11.77	11.63	11.04	9.49	7.52	5.66	4.91	4.93	153.58	6.40

YUMA, ARIZ.

[1883 to 1889 inclusive. Seventy-fifth meridian time.]

Month.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.
Jan	4.1	4.3	4.4	4.6	4.8	5.2	5.4	5.3	5.4	5.3	5.7	7.1	9.0
Feb	5.3	4.8	4.8	4.6	4.8	5.0	5.2	5.0	5.2	5.2	5.7	7.5	9.4
Mar	5.1	4.5	4.3	4.1	3.7	3.8	3.9	3.9	4.1	4.3	5.2	7.0	8.5
Apr	7.3	6.4	5.8	5.3	4.8	4.7	4.3	4.3	4.0	4.2	5.8	7.6	8.3
May	7.0	6.2	5.4	4.8	4.4	3.9	3.4	3.2	3.2	3.9	5.8	6.7	7.5
June	5.8	5.3	4.8	4.3	4.0	3.4	3.2	3.1	2.8	3.9	5.2	6.2	6.8
July	5.8	5.1	4.7	4.6	4.5	4.6	4.4	3.7	3.8	5.5	7.5	8.2	8.5
Aug	5.4	4.7	4.4	4.1	3.9	3.7	3.6	3.4	3.2	4.1	6.0	6.9	7.3
Sept	4.1	4.2	3.4	3.3	3.1	2.9	2.9	2.9	2.9	3.2	4.4	5.9	6.6
Oct	3.5	3.3	3.2	3.2	3.1	3.3	3.3	3.4	3.4	3.7	4.2	5.6	6.7
Nov	3.6	3.5	3.6	3.5	3.7	3.9	4.2	4.4	4.9	5.1	5.4	6.6	8.2
Dec	4.1	3.9	4.0	4.2	4.3	4.7	5.0	5.0	4.9	5.2	5.3	6.2	7.8
Means	5.09	4.68	4.40	4.22	4.09	4.09	4.07	3.97	3.98	4.47	5.52	6.79	7.88

*1883 to 1888 inclusive.

Average daily and hourly wind movement at five stations in Arizona—Continued.

YUMA, ARIZ.—Continued.

Month.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Mid-night.	Average.	
												Daily.	Hourly.
Jan	10.1	10.2	10.0	9.8	9.2	8.4	6.4	4.9	4.3	4.2	4.0	152.2	6.3
Feb	9.9	9.9	9.8	9.9	9.8	9.7	8.7	6.5	6.0	5.7	5.7	164.1	6.8
Mar	8.3	8.4	8.1	8.4	8.6	8.9	8.7	7.6	6.9	6.7	6.2	149.1	6.2
Apr	8.1	8.5	8.7	9.0	9.4	9.5	9.5	9.2	8.8	8.7	8.3	170.8	7.1
May	7.3	7.7	7.8	8.2	8.7	8.9	9.1	9.8	9.2	8.9	8.4	159.3	6.6
June	7.1	7.4	7.6	7.9	8.3	8.8	9.0	9.6	9.2	8.1	7.0	148.7	6.2
July	8.6	8.5	8.5	8.8	9.0	9.5	9.7	10.0	9.8	8.2	6.6	168.0	7.0
Aug	7.2	7.4	7.1	7.6	7.8	8.2	8.7	8.8	8.5	7.7	6.2	146.3	6.1
Sept	6.4	6.4	6.2	6.3	6.2	6.1	6.1	5.9	5.9	5.8	5.1	115.6	4.8
Oct	6.8	6.4	6.2	6.2	6.3	5.9	5.4	4.9	4.4	4.2	4.1	110.8	4.6
Nov	8.6	8.3	8.0	7.7	7.4	6.7	5.4	4.3	4.0	3.7	3.7	128.8	5.4
Dec	8.6	8.9	8.9	8.8	8.3	7.2	5.2	4.6	4.5	4.2	4.0	138.0	5.8
Means.	8.08	8.17	8.07	8.22	8.25	8.15	7.66	7.18	6.79	6.34	5.78	145.98	6.08

Appendix No. 11.

MEAN MAXIMUM TEMPERATURE READINGS OF SELF-REGISTERING INSTRUMENTS AT NINE STATIONS IN ARIZONA.

Stations.	Date.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
		°	°	°	°	°	°	°	°	°	°	°	°
Fort Apache	Jan., 1880, to Sept., 1890.	50.4	55.2	61.4	70.4	80.5	89.8	91.0	86.3	82.2	72.9	61.0	54.7
Yuma	Jan., 1880, to June, 1890.	64.7	70.5	77.8	85.3	93.5	101.2	106.3	104.7	99.2	86.3	73.9	68.0
Prescott	....do	46.9	51.6	57.8	65.3	75.2	84.2	88.1	84.9	80.3	69.0	57.4	51.2
Fort Grant......	....do	53.6	56.6	62.9	70.4	79.2	87.8	91.1	87.6	82.4	73.9	62.4	56.8
Phœnix.........	Jan., 1882, to Feb., 1890.	65.7	71.7	81.6	86.8	94.6	104.6	107.3	104.0	99.2	90.1	78.7	73.4
Florence	Oct., 1877, to Apr., 1882.	61.8	66.6	75.0	82.0	93.1	102.8	105.2	102.6	96.8	84.0	70.9	64.3
Fort Thomas	Apr., 1880, to Oct., 1890.	55.9	62.1	69.9	78.4	89.0	96.3	100.8	96.2	89.8	78.9	65.0	58.3
Tucson	Feb., 1878, to June, 1883.	66.6	67.3	75.2	81.9	92.2	100.8	99.0	94.1	91.5	82.0	69.6	65.4
Maricopa	Nov., 1883, to July, 1887.	65.4	70.4	77.0	82.7	95.9	103.9	107.6	105.0	98.7	87.6	74.7	67.9

Appendix No. 12.

MEAN MINIMUM TEMPERATURE READINGS OF SELF-REGISTERING INSTRUMENTS AT NINE STATIONS IN ARIZONA.

Stations.	Date.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
		°	°	°	°	°	°	°	°	°	°	°	°
Fort Apache	Jan., 1880, to Sept., 1890.	20.8	24.7	29.3	34.4	40.3	47.9	58.7	62.6	49.1	38.5	26.2	23.8
Yuma	Jan., 1880, to June, 1890.	42.0	43.8	50.3	55.2	61.6	68.7	77.4	77.8	70.3	58.5	48.6	46.0
Prescott	....do	20.7	24.3	29.9	36.2	42.5	48.7	59.0	58.0	48.8	38.2	27.1	26.4
Fort Grant	....do	33.1	36.2	41.0	46.7	55.0	63.8	67.3	59.6	60.3	51.7	40.4	36.6
Phœnix	Jan., 1882, to Feb., 1890.	32.2	35.8	41.0	46.3	53.1	59.5	71.6	71.0	60.6	50.2	42.4	36.6
Florence	Oct., 1877, to Apr., 1882.	34.4	38.2	43.1	48.4	54.8	63.0	74.0	73.6	63.7	51.8	39.7	37.2
Fort Thomas	Apr., 1880, to Oct., 1890.	27.6	32.9	39.0	44.0	50.9	60.7	71.4	69.5	60.0	45.0	33.5	30.5
Tucson	Feb., 1878, to June, 1883.	35.1	41.6	44.1	46.7	55.7	64.2	74.8	73.9	67.5	51.6	42.6	37.0
Maricopa	Nov., 1883, to July, 1887.	36.0	38.9	44.8	51.7	62.0	67.9	79.0	77.6	67.0	55.5	42.0	38.1

Appendix No. 21.

LIST OF STATIONS IN NEW MEXICO FOR WHICH METEOROLOGICAL DATA ARE GIVEN.

The names of the stations have been arranged alphabetically under their several counties, commencing at the northwestern portion of the Territory.

Latitudes and longitudes, as given, are not in all cases astronomically correct. Those which have not been accurately determined by reliable surveys have been corrected by reference to the latest standard maps.

Elevations, likewise, are not always given with accuracy. All those in which any reason for doubt existed have been referred to the nearest datum point upon some trustworthy system of contours or determined elevation.

Broken records are indicated by an asterisk (*) in the column "Length of record." The missing period may be ascertained by an inspection of the printed records as they appear in Appendices Nos. 22 and 23.

References: S. S., second-order stations of the Signal Service; V. O., voluntary stations; M. D., stations of the Medical Department of the Army reporting through the Surgeon-General.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea-level.	Record. Length.	Record. From—	Record. To (inclusive)—	T. or R. missing.	Authority.
	Taos.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
M. D..	Camp Burgwin.....	36 30	105 40	7,900	5 11*	May, 1850	May, 1860	......	U. S. post hospital.
V. O..	Taos	......	....	6,933	1 7	Mar., 1889	Sept., 1890	T.	William L. McClure.
V. O..	Tres Piedras	......	....	8,066	1 1	Apr., 1889	Apr., 1890	T.	Mr. McConnell.
	Colfax.								
S. S...	Springer............	36 22	104 33	5,766	3 2	Aug., 1887	Sept., 1890	T.	Signal Service.
	Rio Arriba.								
M. D..	Camp Plummer	......	....	....	0 10	Oct., 1867	Apr., 1869	......	U. S. post hospital.
V. O..	Chama	36 00	106 00	7,862	1 3	July, 1889	Sept., 1890	......	E. A. Southerland.
V. O..	Embudo	36 10	106 00	5,800	1 8	Jan., 1889	....do	T.	George E. Curtis and M. G. Burkholder.
V. O..	Monero	36 54	106 52	7,256	1 0	June, 1889	May, 1890	T.	F. M. Jones.
	Mora.								
M. D..	Fort Union	35 54	104 57	6,750	36 6*	Aug., 1851	Sept., 1890	......	U. S. post hospital.
V. O..	Watrous............	......	....	6,396	1 6*	Apr., 1887	Dec., 1888	......	William Kroning.
	San Miguel.								
M. D..	Fort Bascom	35 23	103 27	4,000	3 10*	Feb., 1864	Oct., 1870	......	U. S. post hospital.
V. O..	Gallinas Spring....	35 14	104 51	4,800	5 6	Mar., 1885	Sept., 1890	......	J. E. Whitmore.
V. O..	Las Vegas	35 36	105 12	6,418	5 1*	Jan., 1850	May, 1890	......	U. S. post hospital, A. Woodworth, M. D., and F. W. Chatfield.
V. O..	Puerto de Luna....	34 45	104 42	4,500?	2 6	Mar., 1884	Sept., 1886	......	F. M. Jones.
M. D..	Fort Sumner.......	34 19	104 09	4,300?	5 0*	Apr., 1864	July, 1869	......	U. S. post hospital.
	Bernalillo.								
M. D..	Albuquerque.......	35 05	106 39	5,026	16 1*	Sept., 1849	Sept., 1890	......	U. S. post hospital and S. M. Rowe.
V. O..	Coolidge...........	35 30	108 15	6,975	2 0	July, 1888	Aug., 1890	......	R. S. Mullen.
M. D..	Fort Fauntleroy ...	35 30	108 40	8,000	1 1*	Oct., 1860	Nov., 1861	......	U. S. post hospital.
	Santa Fé.								
V. O..	Santa Fé	35 41	105 57	7,026	36 5*	Jan., 1849	June, 1890	......	U. S. post hospital and Signal Service.
V. O..	Pojuaque	35 51	105 56	5,750	1 1	July, 1889	Sept., 1890	T.	John Boquet.

List of stations in New Mexico for which meteorological data are given—Continued.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea-level.	Record. Length.	Record. From—	Record. To (inclusive)—	T. or R. missing.	Authority.
	Valencia.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
V.O ..	Antelope Spring ...	34 47	106 00	....	1 1*	July, 1889	Sept., 1890	T.	W. P. Metcalf.
V.O ..	Cebolleta	35 20	107 20	6,200	2 1	Dec., 1849	Dec., 1851	......	U. S. post hospital.
V.O ..	Los Lunas	34 49	106 45	4,831	1 4	May, 1889	Aug., 1890	......	Richard Pohl.
M.D ..	Los Pinos	34 50	106 40	5,000	2 8*	Jan., 1863	May, 1866	......	U. S. post hospital.
M.D ..	Fort Wingate	35 28	108 32	6,822	26 8*	Nov., 1862	Sept., 1890	......	Do.
	Socorro.								
M.D ..	Fort Conrad	33 47	106 48	4,576	3 9	Oct., 1851	June, 1855	......	U. S. post hospital.
M.D ..	Fort Craig	33 40	107 01	4,619	24 4*	Jan., 1854	Dec., 1884	......	U. S. post hospital and Signal Service.
S.S ...	Lava	33 33	106 59	4,703	5 9	Jan., 1885	Sept., 1890	......	Signal Service.
V.O ..	Estalena Springs ...	33 57	107 27	....	0 10	Dec., 1889	Oct., 1890	T.	E. A. Clemens.
V.O ..	Magdalena	34 00	107 09	....	1 1	June, 1889	July, 1890	T.	J. Johnson.
V.O ..	Red Cañon	33 43	106 12	6,500	1 3	....do	Sept., 1890	R.	R. H. Hills.
V.O ..	San Marcial	33 41	106 58	4,437	1 1	July, 1889	....do	T.	A. A. Shaw and H. B. Read.
M.D ..	Fort McRae	33 02	107 05	4,500	5 8*	Mar., 1864	Jan., 1876	......	U. S. post hospital.
M.D ..	Socorro	34 08	106 55	4,565	3 8*	Nov., 1849	May, 1881	......	U. S. post hospital and Signal Service.
M.D ..	Fort Tulerosa	33 57	108 15	....	1 7	May, 1873	Nov., 1874	......	U. S. post hospital.
	Lincoln.								
V.O ..	Nogal	33 35	105 45	7,000	1 3	June, 1889	Sept., 1890	T.	José M. Vega.
V.O ..	Roswell	33 24	104 24	3,857	1 0	Oct., 1889	....do	......	M. A. Upson.
V.O ..	Fort Stanton	33 30	105 26	6,154	17 0*	Jan., 1856	....do	......	U. S. post hospital and Signal Service.
	Sierra.								
V.O ..	Hillsborough	33 00	107 30	5,224	1 4	June, 1889	....do	......	J. E. Smith.
	Dona Ana.								
V.O ..	Fort Fillmore	32 13	106 42	3,937	9 9	Sept., 1851	May, 1861	......	U. S. post hospital.
S.S ...	La Mesilla	32 17	106 48	4,124	5 0	Aug., 1877	July, 1882	......	Signal Service.
V.O ..	Fort Selden	32 27	106 55	3,937	15 5*	Nov., 1865	Sept., 1890	......	U. S. post hospital.
V.O ..	Fort Thorn	32 40	107 10	4,500	5 0	Jan., 1854	Jan., 1859	......	Do.
	Grant.								
M.D ..	Fort Bayard	32 47	108 09	6,022	15 7*	Jan., 1867	Sept., 1890	......	U. S. post hospital and Signal Service.
M.D ..	Fort Cummings	32 27	107 40	4,750	4 7	Jan., 1869	July, 1873	......	U. S. post hospital.
R.R ..	Deming	32 18	107 48	4,327	8 4*	Nov., 1881	Sept., 1890	......	Southern Pacific R. R.
R.R ..	Lordsburg	32 20	108 40	4,247	8 10	....do	....do	......	Do.
S.S ...	Silver City	32 46	108 14	5,796	4 11	May, 1878	Mar., 1882	......	Signal Service.
V.O ..	Fort Webster	32 48	108 04	6,350	1 11	Feb., 1852	Dec., 1853	......	U. S. post hospital.

APPENDIX No. 22.

MONTHLY AND ANNUAL PRECIPITATION AT FORTY-EIGHT STATIONS IN NEW MEXICO.

Interpolated values are entered in brackets [ ]. As a rule interpolations have been made from the Monthly Weather Review charts, which contain data from all available sources, and thus afford facilities for a very close approximation to the actual conditions which existed during the interpolated periods. Reference: Capital T indicates trace of precipitation.

ANTELOPE SPRING, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889							8.24	0.16	0.52	1.47	0.82	0.24	
1890	0.14	0.56	[0.75]	1.57	0.09	0.20	4.53		1.49				13.38
Means							6.38		1.00				

ALBUQUERQUE, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1850	[0.32]	0.05	0.01	0.02	0.21	0.18	1.26	0.45	0.51	0.28	1.02	0.61	[4.92]
1851	0.07	0.56	0.42	0.04	0.03	0.00	0.30						
1852				0.70	0.07	8.15	0.07	4.06	0.19	0.35	0.16	0.02	
1853	0.00	0.00	0.01	0.00	0.04	0.00	2.57	3.80	0.07	0.00	0.31	0.30	7.10
1854	0.13	0.00	0.43	0.39	1.19	0.28	2.59	1.19	2.67	1.37	1.35	0.92	12.51
1855	0.20	0.40	1.02	0.74	0.89						0.77		
1856	0.20	0.20	0.19	0.10	0.23	0.25	0.17	1.23	1.12	0.10	0.33	0.03	4.15
1857	1.45	0.25	0.00	0.15	0.00	0.10	0.35	0.77	0.78	1.25	0.10	0.00	5.20
1858	0.00	0.50	0.80	1.60	0.00	3.50	3.60	4.90	0.00	0.00	0.00	1.40	16.30
1859	0.00	0.00	0.15	0.15	0.00	0.00	0.25	2.30	3.10	0.00	0.00	0.00	5.95
1860	0.70	0.30	0.00	0.00	0.00	0.70	0.20	1.00	0.35	0.00	0.52	0.01	3.78
1861		0.00	T				0.38	0.34	0.67		0.00		
1863					T				0.60	1.20	0.05	0.19	
1864	0.37	0.00	T	T	0.10	1.84	0.90	0.25	0.30	0.67	0.52	0.59	5.54
1865	0.20	0.39	0.10	0.20	[0.19]	1.45	1.00	1.30	0.00	5.40	0.00	0.12	10.35
1866	0.20	0.10							0.90	0.32	0.17		
1867	0.45	0.16	0.02	0.02			0.41						
1878										0.00	1.83	0.07	
1879	0.49	0.26	0.02	0.02	0.03	T							
1881			0.04										
1888					0.39	T							
1889				0.70	T	0.53	0.77	0.21	0.18	0.76	0.00		
1890					0.04	0.00	2.07	0.61	0.97				
Means	0.32	0.20	0.20	0.30	0.19	1.06	0.99	1.68	0.72	0.78	0.42	0.33	7.19

BASCOM, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864		0.00		0.02	0.40	0.40	0.02	0.01	0.00	[0.65]	[1.00]	0.00	
1865	0.00	0.60	0.01	[0.10]	0.30	[1.50]	4.41	1.10	0.01	[0.50]	0.00		
1866	0.00	0.00	0.00										
1869	[0.08]	[0.15]	0.25	1.70	1.72	2.59	2.20	1.56	0.00	[0.00]	1.50	1.00	[12.75]
1870	0.25	0.00	[0.09]	1.40	1.20	1.90	2.35	2.93	0.79	1.89	[0.00]	[0.00]	[12.80]
Means	0.08	0.15	0.09	0.80	0.90	1.60	2.24	1.40	0.20	0.85	0.62	0.33	9.26

***Monthly and annual precipitation at forty-eight stations in New Mexico*—Continued.**

BAYARD, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	[0.71]	[1.25]	0.67	0.20	T	0.00	4.45	2.19	1.60	0.75	0.55	1.50	[13.87]
1868	1.35	0.50	[0.58]	0.43	0.90	0.00	4.81	2.52	2.66	0.05	0.35	1.08	[15.23]
1869	0.60	0.44	0.53	0.19	0.00	3.74	0.87	4.17	0.03	0.76	0.57	0.94	12.84
1870	0.38	0.32	0.33	0.02	0.00	1.10	2.96	3.57	0.73	0.01	0.00	0.65	10.07
1871	0.64	0.05	0.10	0.10	0.00	0.05	0.09	0.19	2.27	0.75	1.30	0.25	5.79
1872	0.85	0.72	0.27	0.66	0.11	1.26	2.85	3.37	1.25	0.15	0.04	2.08	13.61
1873	0.48	1.91	0.87	0.04	0.29	1.10	3.02	1.73	1.30	0.00	0.70	0.74	22.18
1874	1.79	5.68	1.72	2.32	0.90	0.30	2.09	2.38	0.83	1.00	0.65	0.72	20.38
1875	0.75	1.55	0.80	0.02	T	0.04	7.22	2.08	5.90	T	0.00	1.30	19.66
1876	0.98	0.08	0.24	T	0.40	2.44	2.88	3.16	3.24	4.17	1.13	0.22	18.94
1877	0.38	3.54	0.29	0.60	0.47	0.00	2.81	1.71	0.97	0.61	0.17	1.54	13.12
1878	0.03	0.71	1.05	......	......	......	......	......	......	......	......	......	......
1883	......	......	......	......	......	......	4.69	7.67	1.06	......	......	......	......
1886	1.05	1.07	0.18	[0.35]	0.02	1.16	1.16	1.90	[1.97]	1.60	......	......	......
1887	0.08	1.51	[0.58]	0.01	0.06	0.25	1.57	3.64	4.30	0.55	[0.62]	0.42	[13.59]
1888	0.15	0.29	0.90	[0.35]	0.10	0.20	4.79	0.27	0.30	3.00	2.05	1.02	[13.42]
1889	0.50	0.41	0.18	T	0.13	0.90	0.91	0.70	2.19	0.67	[0.62]	T	[7.21]
1890	1.40	T	0.11	T	0.00	T	......	......	......	......	......	......	......
Means	0.71	1.18	0.55	0.33	0.21	0.78	2.95	3.20	1.91	0.94	0.62	0.89	14.27

BURGWIN, CAMP, N. MEX.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1854	......	......	......	......	......	......	......	......	0.21	0.13	1.03	0.06	......
1855	1.42	0.05	0.19	0.05	0.11	0.20	0.37	2.39	1.43	0.00	0.83	0.49	7.53
1856	0.08	0.30	0.14	0.15	0.04	0.21	0.51	0.70	0.40	0.18	0.60	0.55	3.86
1857	1.50	0.27	0.12	0.32	0.13	0.02	0.13	0.21	1.20	1.25	1.97	0.86	7.98
1858	0.72	0.18	0.53	2.24	0.74	0.89	1.38	2.39	0.87	0.56	0.58	0.83	11.91
1859	0.33	1.35	0.66	0.89	0.48	0.48	1.85	2.87	1.93	0.55	0.83	0.48	12.70
1860	0.30	0.69	1.43	1.21	0.00	......	......	......	......	......	......	......	......
Means	0.72	0.47	0.51	0.81	0.25	0.36	0.85	1.71	1.01	0.44	0.97	0.54	8.64

COOLIDGE, N. MEX.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	1.60	0.80	0.40	0.90	0.40	0.90	......
1889	0.60	0.80	0.60	0.40	0.40	1.20	3.20	0.00	0.90	0.20	0.30	0.20	8.80
1890	1.45	0.40	......	......	......	0.80	0.30	0.59	......	......	......	......	......
Means	1.02	0.60	0.60	0.40	0.40	1.00	2.55	0.70	0.65	0.55	0.35	0.55	9.37

CONRAD, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1851	......	......	......	......	......	......	......	......	......	0.03	0.09	0.39	......
1852	0.01	0.03	0.00	0.07	0.25	2.15	0.65	1.32	1.10	1.63	1.34	0.08	8.63
1853	0.23	0.39	0.38	0.00	0.35	0.74	2.78	1.20	0.53	0.00	0.59	0.67	7.86
1854	0.00	0.00	0.05	0.01	0.62	0.01	0.41	1.02	2.13	0.34	1.09	0.08	5.76
1855	0.00	0.01	0.12	0.08	0.10	0.21	......	......	......	......	......	......	......
Means	0.06	0.11	0.14	0.04	0.33	0.78	1.28	1.18	1.25	0.50	0.78	0.30	6.75

CHAMA, N. MEX.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	0.47	2.16	1.67	0.70	1.45	0.98	......
1890	2.25	2.90	1.64	1.66	0.27	0.55	2.61	2.05	1.91	......	......	......	......
Means	......	......	......	......	......	......	1.54	2.10	1.79	......	......	......	17.83

Monthly and annual precipitation at forty-eight stations in New Mexico—Continued.

CEBOLLETA, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1849	......	......	......	......	......	......	......	......	......	......	......	0.40	......
1850	0.45	1.10	0.63	0.55	0.23	0.28	0.85	0.26	1.37	1.58	0.55	1.84	9.69
1851	0.15	2.11	0.10	0.94	0.01	0.00	0.25	2.18	5.82	1.60	0.81	1.15	15.12
Means	0.30	1.60	0 36	0.74	0.12	0.14	0.55	1.22	3.60	1.59	0.68	1.13	12.03

CRAIG, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1855	0.00	0.00	0.12	0.10	0.10	0.21	2.31	0.57	2.98	0.07	1.43	0.00	7.89
1856	0.00	1.40	0.89	0.03	0.20	1.21	0.97	0.97	6.32	0.06	0.51	0.00	12.56
1857	0.70	0.52	0.00	0.07	0.16	0.50	2.38	3.59	3.79	0.92	0.00	0.80	13.43
1858	0.00	0.00	1.50	0.11	0.00	0.24	1.13	1.42	0.04	0.00	0.00	0.19	4.63
1859	0.00	0.00	0.05	0.00	0.00	1.17	7.43	11.87	2.39	0.50	0.20	0.97	24.58
1860	0.16	0.99	0.00	0.39	0.00	[0.64]	[2.22]	0.54	0.81	0.00	0.12	0.42	[6.29]
1861	1.35	0.10	0.00	0.04	0.26	0.89	2.10	3.03	2.90	0.00	0.00	0.00	10.67
1862	0.22	0.00	0.37	0.00	0.00	0.06	[2.22]	[2.58]	4.44	8.06	2.38	......	......
1865	......	0.75	......	0.04	0.16	[0.64]	1.74	1.35	0.59	[0.90]	0.00	0.85	......
1866	0.03	0.01	0.87	0.16	0.08	......	......	......	1.09	0.03	0.02	[0.40]	......
1867	0.15	0.00	0.40	0.00	......	......	......	......	0.57	1.17	0.86	0.48	......
1868	0.16	0.00	0.02	1.08	0.33	0 01	5.06	5.53	3.40	0.00	1.49	0.36	17.44
1869	0.68	0.49	0.23	0.26	0.24	1.74	0.42	4.32	0.00	0.48	2.02	0.42	11.30
1870	0.00	0.10	0.00	0.10	0.00	0.43	2.45	3.61	1.00	1.05	0.04	0.36	9.14
1871	0.23	......	......	......	......	......	......	1.13	2.33	0.69	0.00	0.00	......
1872	......	0.70	0.00	0.07	0.11	1.15	......	......	......	0.52	0.02	0.60	......
1873	0.02	0.16	0.40	0.18	0.13	1.21	0.10	1.80	1.35	0.07	0.3[illegible]	0.04	5.85
1874	0.73	1.14	0.99	0.74	0.32	0.52	0.46	1.50	0.45	0.69	0.53	1.01	9.08
1875	0.02	0.36	0.04	T	2.03	1.47	4.26	0.89	3.88	0.00	0.16	0.2[illegible]	13.[illegible]1
1876	0.44	0.07	0.35	T	0.48	0.76	2.08	2.46	2.7[illegible]	1.66	0.58	0.08	11.68
1877	0.18	2.43	0.10	0.94	0.46	0.00	2.77	1.41	1.58	1.88	0.12	0.58	12.45
1878	0.46	0.02	0.78	0.22	[0.25]	0.10	1.70	1.41	0.08	0.00	0.18	0.13	[5.3[illegible]]
1879	0.65	0.30	0.00	0.12	0.00	0.08	......	......	......	......	......	......	......
1884	1.10	0.04	0.09	0.03	0.19	0.37	0.42	2.69	1.[illegible]9	1.96	0.94	0.88	10.00
Means	0.33	0.42	0.33	0.20	0.25	0.64	2.22	2.63	2.00	0.90	0.52	0.40	10.84

CUMMINGS, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	[0.72]	[0.26]	1.38	0.90	0.10	3.52	1.07	4.94	0.80	0.44	0.52	0.65	[15.30]
1870	0.00	[0.00]	0.26	0.00	0.00	1.99	6.50	8.99	0.41	0.12	0 00	2.00	[20.[illegible]0]
1871	0.68	0.15	0.05	0.00	0.00	1.40	2.84	1.83	2.88	0.72	0.14	0.10	10.[illegible]9
1872	0.22	0.00	0.00	0.20	0.11	0.44	3.58	3.58	0.31	0.13	0.00	4.95	13.52
1873	2.00	0.62	0.32	0.15	0.05	1.27	1.27	......	......	......	......	......	....
Means	0.72	0.20	0.40	0.25	0.05	1.72	3.05	4.84	1.11	0.35	0.16	1.92	14.77

DEMING, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	......	......	......	......	......	......	......	......	......	1.75	[0.40]	......
1882	......	......	......	0.00	0.00	0.43	1.22	2.55	0.5[illegible]	0.00	1.54	0.[illegible]0	......
1883	0.10	0.00	1.77	0.00	0.00	0.10	2.95	1.41	0.53	[0.88]	0 30	[0.40]	[8.44]
1884	0.80	0.70	0.20	0.20	0.00	0.00	0.52	1.04	0.80	1.53	[0.74]	1.35	[7.88]
1885	0.00	[0.00]	0.52	0.00	0.77	1.33	1.38	0.81	0.09	0.28	0.50	0 91	[6.[illegible]9]
1886	0.68	0.50	0.00	0.00	0.00	0.00	1.13	4.19	4.36	0.50	0.00	0.00	11.36
1887	0.00	0.20	0.00	0.00	0.00	0.00	2.02	3.46	3.39	2.13	0.31	0.05	11.56
1888	0.26	1.77	0.24	0.50	0.70	0.50	1.08	0.60	0.00	1.60	1.45	0.27	8.97
1889	1.09	0.10	0.12	0.05	0.00	0.90	1.0[illegible]	0.64	3.55	0.84	0.80	0.00	9.18
1890	0.53	0.00	0.00	0.13	0.00	0.16	4.09	2.20	2.26	......	......	......	......
Means	0.43	0.41	0.36	0.10	0.16	0.38	1.42	1.84	1.66	0.97	0.82	0.40	8.95

Monthly and annual precipitation at forty-eight stations in New Mexico—Continued.

EMBUDO, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	1.13	0.37	0.32	1.04	[0.15]	0.55	3.27	1.33	1.19	1.16	0.33	0.35	[11.19]
1890	0.28	0.18	0.78	2.39	0.05	0.43	1.88	0.04	0.60	......	......	......	......
Means	0.70	0.28	0.55	1.72	0.10	0.49	2.58	0.68	0.80	......	......	......	9.74

ESTALINA SPRING, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	......	[1.00]	0.06	
1890	1.24	0.15	0.25	0.40	0.05	0.24	3.36	[1.50]	2.36	0.32	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	10.93

FILLMORE, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1851	......	......	......	......	......	......	......	......	1.40	0.11	2.13	1.74	......
1852	[0.22]	0.29	0.04	0.20	0.40	1.74	3.84	1.00	1.47	0.77	2.66	0.00	[12.63]
1853	0.04	0.10	0.03	0.01	0.05	0.28	2.89	1.83	1.21	0.90	1.15	0.61	9.04
1854	0.00	0.00	0.65	0.10	0.86	0.05	0.87	1.38	0.95	0.39	0.67	0.15	6.07
1855	0.00	0.00	0.12	0.45	0.10	0.07	2.63	1.29	2.31	0.09	0.45	0.00	7.51
1856	0.00	1.85	0.30	0.00	0.00	0.85	0.86	2.48	2.61	0.00	0.27	0.09	9.22
1857	0.30	0.95	0.00	0.26	0.00	0.00	0.43	3.68	2.24	2.41	0.00	0.13	10.40
1858	0.00	0.00	0.22	0.00	0.00	0.78	2.50	1.61	0.00	0.00	0.00	0.00	5.11
1859	0.00	0.14	0.00	0.00	0.00	0.00	1.18	1.15	1.59	0.30	1.16	0.00	5.52
1860	0.06	1.10	[0.15]	T	0.00	0.39	1.10	T	0.90	T	T	0.00	[3.61]
1861	1.60	T	0.00	0.00	T	......	......	......	......	......	......	......	......
Means	0.22	0.44	0.15	0.10	0.14	0.45	1.80	1.60	1.47	0.50	0.85	0.27	7.99

GALLINAS SPRING, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	[0.80]	[0.50]	0.75	0.95	1.77	1.68	1.65	2.51	T	0.35	0.25	0.70	[11.91]
1886	1.05	1.50	1.00	1.75	0.31	5.04	2.51	5.12	7.78	1.26	0.10	0.40	27.82
1887	0.75	0.00	[0.63]	0.85	3.60	5.57	0.42	1.66	3.62	1.45	0.45	0.13	[19.13]
1888	0.30	0.27	0.54	1.04	0.58	2.24	2.13	3.32	0.08	1.70	2.18	0.79	15.17
1889	1.15	0.22	0.22	2.52	0.88	0.71	1.47	1.77	0.45	1.85	1.85	0.02	13.11
1890	0.18	0.03	0.12	3.43	0.17	1.76	2.88	1.08	0.76	......	......	......	......
Means	0.70	0.42	0.54	1.76	1.22	2.83	1.64	2.88	2.39	1.32	0.97	0.41	17.08

HILLSBOROUGH, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	1.23	4.19	0.76	3.93	0.78	1.20	[0.00]	......
1890	1.64	0.04	T	0.29	0.00	0.13	2.50	3.61	3.49	......	......	......	......
Means	......	......	......	......	......	0.68	3.34	2.18	3.71	......	......	......	13.71

LAS VEGAS, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1850	......	......	......	0.02	......	......	......	......	0.00	0.00	0.12	3.12	......
1851	......	4.23?	0.01	2.11	2.82	0.00	5.10	......	......	......	......	......	......
1875	......	......	2.40	0.25	1.30	0.85	8.15	2.75	8.10	0.00	0.65	0.20	......
1876	0.40	......	......	......	......	......	......	......	......	......	......	......	......
1887	......	......	......	......	......	......	......	......	2.25	3.05	1.88	0.11	......
1888	0.14	0.76	0.55	0.76	3.00	1.68	3.54	5.85	......	0.40	1.08	0.45	......
1889	1.19	0.22	0.50	2.15	0.35	1.25	4.30	1.15	0.80	1.30	4.20?	1.01	18.42
1890	......	1.50	......	......	3.20	......	......	......	......	......	......	......	......
Means	0.58	1.68	0.86	1.06	2.13	0.94	5.27	3.25	2.79	0.95	1.59	0.98	22.08

Monthly and annual precipitation at forty-eight stations in New Mexico—Continued.

LAVA, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	0.28	0.17	1.02	0.44	0.82	0.97	2.27	1.78	0.06	0.09	0.20	1.15	9.25
1886	0.13	0.38	0.06	T	0.00	0.29	2.05	3.32	5.67	1.15	T	T	13.05
1887	T	0.46	T	0.06	0.40	0.64	1.27	1.94	2.12	0.85	0.03	0.11	15.53
1888	0.02	1.75	0.70	0.45	0.09	0.38	2.12	1.34	0.55	3.10	4.85	0.31	15.66
1889	1.60	0.78	0.22	0.04	0.03	1.38	2.27	0.15	1.30	0.35	1.11	T	9.23
1890	0.80	0.14	0.10	0.12	0.00	0.76	1.76	1.23	2.[illegible]0	......	......	......	....
Means	0.47	0.61	0.35	0.18	0.22	0.74	1.96	1.63	1.94	1.11	1.24	0.31	10.76

LA MESILLA, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	0.01	0.91	0.98	0.06	0.41	....
1878	0.07	0.43	0.69	0.15	1.38	1.02	2.06	0.61	0.21	0.09	1.29	0.07	8.07
1879	1.20	0.62	0.31	0.03	0.00	0.03	1.87	1.02	0.18	0.78	0.00	1.26	7.30
1880	0.14	0.43	0.52	0.45	0.00	T	1.92	1.03	1.02	0.35	0.13	1.11	7.10
1881	0.04	T	0.14	0.09	1.75	0.43	3.90	3.13	1.96	2.14	0.56	0.91	15.05
1882	0.63	1.36	0.41	0.01	0.10	0.72	1.32	......	......	......	......	......	....
Means	0.42	0.57	0.41	0.15	0.65	0.44	2.21	1.16	0.86	0.87	0.41	0.75	8.90

MAGDALENA, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	2.50	1.00	1.07	0.43	0.36	1.40	0.05	....
1890	0.80	0.10	0.40	0.80	[0.00]	0.20	5.31	......	......	......	......	......	....
Means	0.80	0.10	0.40	0.80	......	1.35	3.16	......	......	......	......	......	[9.92]

LORDSBURGH, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	......	......	......	......	......	......	......	......	......	0.49	0.94	....
1882	0.95	0.35	0.38	0.00	0.59	0.63	1.32	3.12	0.00	0.00	1.20	0.20	8.74
1883	0.33	0.37	0.00	0.00	0.00	0.00	1.00	3.45	0.11	[0.56]	[0.40]	0.20	[6.42]
1884	0.80	0.13	1.20	0.20	T	0.00	2.20	1.30	2.35	2.55	0.00	1.46	12.19
1885	0.00	0.20	0.40	T	0.40	0.39	0.75	0.35	0.05	0.20	0.55	0.70	3.99
1886	0.00	0.33	0.00	0.00	0.00	0.00	1.54	1.65	1.17	0.17	0.20	0.00	5.06
1887	0.00	0.12	0.00	0.00	0.10	0.30	3.17	2.67	1.31	0.00	0.32	0.70	8.69
1888	0.44	0.10	0.88	0.00	0.00	0.28	2.97	0.84	0.76	2.14	1.50	0.92	10.83
1889	4.07	0.45	0.10	0.20	0.00	0.25	1.70	1.28	1.76	0.41	0.02	0.10	10.34
1890	0.92	0.05	0.00	0.13	0.00	1.43	3.11	3.69	1.90	......	......	......	....
Means	0.84	0.23	0.33	0.06	0.12	0.36	1.83	1.83	0.94	0.67	0.52	0.58	8.31

LOS LUNAS, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	T	3.70	0.21	0.37	0.52	0.35	T	T	....
1890	0.05	0.87	1.36	0.63	T	T	1.00	T	......	......	......	......	....
Means	......	......	......	......	T	1.85	0.60	0.18	......	......	......	......	6.41

McRAE, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864	......	......	0.50	0.00	1.75	5.50	3.00	......	......	......	......	......	....
1865	......	......	T	0.37	......	......	......	......	......	......	......	......	....
1868	......	......	......	0.04	0.74	......	......	......	1.70	0.22	0.76	0.29	....
1869	0.40	0.67	0.70	1.85	0.08	2.08	1.19	3.98	T	0.41	0.94	0.54	12.84
1870	0.00	[0.22]	[0.31]	0.00	[0.53]	0.52	4.11	3.67	0.95	0.95	0.00	0.54	[11.80]
1871	......	0.00	0.00	......	......	......	......	......	......	......	......	0.10	....

Monthly and annual precipitation at forty-eight stations in New Mexico—Continued.

McRAE, FORT, N. MEX.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872				0.00	0.45							1.10	
1873	[0.20]	0.12	0.40	0.20	[0.53]	0.39	0.05	2.50	1.38	0.08	0.30	0.00	[6.15]
1874	0.01	0.09	0.60	2.20	0.15	0.10	0.11	3.66	3.90	[0.33]	T	[0.40]	[11.55]
1875	0.00		0.00	0.00	0.00					0.00	0.00	0.20	
1876	0.60												
Means	0.20	0.22	0.31	0.52	0.53	1.72	1.69	3.45	1.59	0.33	0.33	0.40	11.29

NOGAL, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889						2.72	2.39	[0.90]	3.54	2.28	3.00	0.07	
1890	1.98	1.80	0.24	0.89	[0.00]	0.88	5.09	4.16	1.80				
Means						1.80	3.74	2.53	2.67				21.00

MONERO, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889						0.65	2.61	0.92	[1.24]	1.55	0.30	2.60	
1890	1.52	2.07	1.86	1.27	0.00								
Means													16.59

POJUAQUE, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889							0.93	[2.00]	1.23	0.75	0.27	0.28	
1890	0.42	0.63	0.39	2.48	0.00	0.02	2.11	[2.00]	1.02				
Means							1.52		1.12				9.88

PUERTO DE LUNA, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884				T	1.20	1.07	2.10	5.63	1.29	1.04	[0.14]	0.26	
1885	0.92	3.18	0.74	0.26	2.40	3.18	0.65	2.81	1.43	0.33	0.14	0.66	16.70
1886	1.04	0.71	0.81	0.39	0.00	1.09	1.00	5.56	3.85				
Means	0.98	1.94	0.78	0.22	1.20	1.78	1.25	4.67	2.19	0.68	0.14	0.46	16.29

RED CAÑON, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889						0.72	1.26	0.65	1.57	1.60	0.50	0.00	
1890	1.18	T	0.17	0.63	[0.00]	0.41	3.70	2.27	2.11				
Means						0.56	2.48	1.46	1.84				10.42

ROSWELL, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889										2.55	3.15	0.05	
1890	0.33	0.15	0.00	0.76	0.03	0.48	2.17	4.89	0.76				
Means													15.32

Monthly and annual precipitation at forty-eight stations in New Mexico—**Continued.**

SAN MARCIAL, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	1.13	0.99	2.55	0.66	0.70	0.00	......
1890	0.87	0.20	0.05	0.39	0.27	0.00	0.95	[0.99]	1.53	......	......	......	......
Means	......	......	......	......	......	......	1.04	......	2.04	......	......	......	7.12

SANTA FÉ, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1850	......	1.26	1.00	0.65	......	......	0.98	0.92	......	0.38	......	1.60	......
1852	......	......	......	......	......	......	......	......	0.91	2.55	1.65	1.36	......
1853	0.00	0.69	0.50	0.00	0.98	1.88	7.45	5.42	2.68	0.97	0.43	0.77	21.77
1854	0.36	0.12	2.01	1.68	1.16	0.32	4.11	3.86	4.06	2.50	3.54	1.08	24.80
1855	0.57	0.20	0.20	0.85	0.68	1.77	2.09	7.89	5.38	0.00	2.69	1.86	24.18
1856	1.29	1.36	2.59	0.88	0.48	2.32	0.78	7.08	2.52	0.99	2.18	0.60	23.07
1857	1.03	0.87	0.11	0.73	0.18	0.22	0.44	1.75	1.28	1.40	0.27	0.24	8.52
1858	0.00	0.48	0.69	1.05	0.58	0.73	4.04	2.40	0.43	0.03	0.30	0.62	11.35
1859	0.01	0.64	0.50	0.08	0.00	0.97	2.02	2.44	1.98	0.55	0.23	0.07	9.49
1860	0.43	0.69	0.35	1.18	0.00	1.65	1.30	0.49	2.17	0.22	0.00	0.35	8.83
1861	0.69	4.40	0.44	[0.77]	[0.78]	3.50	1.62	3.08	0.00	0.44	0.00	0.09	[15.81]
1863	0.49	0.14	0.00	0.69	1.09	1.18	1.22	0.77	0.72	0.17	0.66	0.62	7.75
1864	0.21	......	0.09	......	2.00	3.03	4.21	......	3.18	3.00	0.80	1.80	......
1865	0.58	5.20	1.16	1.08	0.73	1.02	5.70	3.32	0.30	3.21	0.00	0.85	23.15
1866	......	0.80	......	......	......	......	......	......	......	......	......	......	......
1867	......	......	......	......	......	......	......	......	0.00	......	0.02	0.40	......
1868	1.04	0.07	0.60	0.94	1.10	0.06	3.20	0.55	0.18	0.03	0.62	0.53	8.92
1869	1.71	1.01	0.88	0.70	1.46	1.55	0.55	1.47	0.20	0.00	1.10	1.45	12.08
1870	0.05	0.35	0.65	0.42	0.04	0.51	4.00	3.32	2.67	1.14	0.17	0.61	13.93
1871	1.49	0.20	0.51	0.38	0.85	1.26	0.91	2.89	2.89	0.77	0.00	0.00	12.15
1872	0.31	0.20	0.13	0.14	0.45	2.44	2.62	2.98	0.2[illegible]	0.25	0.01	0.04	9.87
1873	0.55	0.40	0.15	0.26	0.33	1.72	1.02	2.79	1.23	0.07	0.38	0.83	9.73
1874	1.39	1.60	1.51	1.71	0.70	0.54	3.92	1.73	1.52	2.47	0.58	2.26	19.93
1875	0.67	0.72	1.37	0.33	0.88	0.33	6.91	1.59	4.14	0.06	1.50	0.47	18.97
1876	0.61	0.40	0.64	0.46	9.83	1.62	5.43	2.13	0.85	0.75	0.97	0.38	15.07
1877	0.18	1.08	0.14	1.83	0.92	0.13	3.54	1.72	0.96	1.32	0.70	0.63	13.15
1878	0.21	0.89	0.73	0.22	1.01	3.18	3.20	5.12	1.03	0.00	3.15	0.78	19.52
1879	0.77	0.23	0.15	0.48	0.37	0.51	2.34	2.30	1.07	1.38	1.34	0.50	11.44
1880	0.28	0.94	0.15	0.05	0.52	0.65	2.69	1.79	1.13	0.75	0.28	0.66	9.89
1881	0.38	0.22	0.57	0.98	2.31	0.08	4.72	6.28	0.91	4.19	1.11	[0.50]	[21.35]
1882	0.47	0.06	0.23	0.26	1.05	1.36	1.17	4.69	0.62	T	0.90	0.55	11.37
1883	0.42	0.96	0.40	0.11	0.87	......	......	......	......	......	......	......	......
1884	......	......	......	......	......	......	......	......	......	......	......	1.77	......
1885	0.26	0.53	1.51	1.38	1.31	1.57	1.13	0.98	1.87	1.07	1.01	2.27	14.89
1886	0.70	0.85	0.47	1.33	0.21	0.95	1.54	4.15	4.02	1.06	0.30	0.32	15.90
1887	0.10	0.85	0.66	0.74	1.73	0.60	2.24	1.57	2.41	1.50	0.66	0.32	13.38
1888	0.44	0.90	0.61	1.42	0.70	0.16	1.98	2.08	0.38	1.40	1.30	0.66	12.03
1889	0.84	0.53	0.80	0.44	0.15	0.63	1.32	1.43	0.67	0.37	0.45	0.26	7.89
1890	0.42	0.88	0.69	2.08	T	0.13	......	......	......	......	......	......	......
Means	0.56	0.88	0.63	0.77	0.78	1.17	2.74	2.84	1.61	1.03	0.86	0.79	14.69

FORT SELDEN, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1865	......	......	......	......	......	......	......	......	......	......	0.00	1.00	......
1866	0.00	......	0.81	......	......	......	......	......	0.73	......	0.69	0.17	......
1867	0.21	0.60	0.38	0.00	0.01	0.03	4.31	0.80	2.90	0.26	0.17	0.22	9.89
1868	0.67	0.02	0.08	0.12	1.13	0.01	2.00	1.79	1.68	0.38	0.33	1.50	9.71
1869	0.71	1.27	0.46	0.53	0.18	2.15	0.35	5.09	0.14	1.01	0.50	0.20	12.60
1870	0.00	0.00	0.00	0.00	0.00	1.70	5.20	4.00	0.70	0.65	0.00	0.25	12.50
1871	0.00	0.00	0.00	0.00	0.22	0.60	2.30	1.05	2.75	0.00	0.00	0.00	6.92
1872	0.15	0.00	0.00	0.00	0.00	0.09	1.19	0.85	1.10	0.25	0.00	2.70	6.33
1873	0.03	0.00	0.00	0.01	0.02	0.28	0.20	2.24	0.30	0.11	0.26	0.04	3.49
1874	0.59	0.55	0.26	0.62	0.01	0.18	0.39	1.10	0.35	0.62	0.71	0.75	6.13
1875	[0.33]	T	T	T	T	0.02	3.47	0.50	1.58	0.00	T	0.12	[6.02]
1876	0.97	0.02	0.02	0.00	0.20	1.82	0.40	1.10	2.32	2.65	0.26	0.00	9.76
1877	0.01	4.46	......	......	......	......	......	......	......	......	......	......	......
1886	T	0.10	0.00	0.00	0.00	0.62	0.00	1.05	3.25	2.27	0.60	0.00	7.89
1887	0.10	0.30	0.00	0.00	0.58	0.20	0.68	2.64	1.94	0.74	0.00	0.24	7.42
1888	0.16	1.15	0.82	0.54	0.00	0.00	1.28	0.76	0.67	2.52	2.71	0.48	11.09
1889	1.30	0.51	0.20	0.04	0.08	0.74	0.59	0.26	1.62	1.06	0.67	0.00	7.07
1890	0.73	0.00	0.02	0.04	0.00	0.29	0.84	2.63	1.31	......	......	......	......
Means	0.33	0.56	0.19	0.13	0.16	0.58	1.55	1.84	1.46	0.85	0.43	0.49	8.57

Monthly and annual precipitation at forty-eight stations in New Mexico—Continued.

SILVER CITY, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	0.00	0.05	3.92	7.70	0.27	T	3.81	0.77	......
1879	2.78	1.12	0.32	0.01	0.00	0.08	1.37	3.85	2.41	1.06	0.28	0.49	13.77
1880	0.79	0.85	0.53	0.30	0.00	0.99	3.05	3.51	3.57	1.66	0.00	1.65	16.90
1881	0.02	0.73	0.91	0.48	1.01	0.43	9.62	8.69	3.89	3.21	1.55	0.28	30.82
1882	1.83	2.06	1.17	0.08	1.37	1.92	1.84	6.00	1.05	0.00	1.37	0.58	19.27
1883	1.68	0.63	1.57	......	......	......	......	......	......	......	......	......	......
Means	1.42	1.08	0.90	0.22	0.48	0.69	3.96	5.95	2.24	1.19	1.40	0.75	20.28

SOCORRO, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1849	......	......	......	......	......	......	......	......	......	......	1.76	0.80	......
1850	0.05	0.52	0.60	0.42	0.12	0.17	1.29	0.54	0.24	1.81	0.92	0.44	7.12
1851	0.02	0.45	......	0.45	0.01	0.00	0.40	2.07	......	......	......	......	......
1879	......	......	......	......	......	......	2.24	1.46	1.95	2.10	0.03	0.01	......
1880	0.15	0.03	0.11	0.05	0.14	......	......	......	......	2.81	0.81	3.54	......
1881	0.55	0.01	0.07	0.23	0.51*	......	......	......	......	......	......	......	......
Means	0.19	0.25	0.26	0.29	0.20	0.08	1.94	1.36	1.42	2.24	0.83	1.20	10 31

SPRINGER, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	......	......	......	......	......	......	......	1.89	1.42	1.35	0.05	0.11	......
1888	0.11	0.24	0.14	1.01	0.57	0.74	2.98	4.94	0.00	0.87	0.65	0.31	12.56
1889	0.65	0.00	0.36	2.35	1.18	0.21	3.71	0.50	0.50	0.70	1.43	0.00	11.59
1890	0.00	0 00	0.02	2.10	0.60	0.50	4.40	0.90	1.00	......	......	......	......
Means	0.25	0.08	0.17	1.82	0.78	0.48	3.34	2.44	0.64	0.97	0.71	0.14	11.82

STANTON, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1856	0.50	0.58	1.59	0.24	0.26	0.68	1.99	3.62	2.81	0.19	2.14	2.21	16.81
1857	0.67	0.97	0.17	0.62	0.69	1.27	4.88	9.24	6.14	2.59	0.87	0.59	28.70
1858	0.65	0.12	1.47	0.31	0.70	2.00	3.49	8.09	0.74	0.47	0.24	0.48	18.76
1859	0.09	0.53	1.00	0.30	0.20	3.19	3.30	6.93	3.77	2.60	0.25	1.65	23.81
1860	0.39	3.55	0.08	1.41	[0.91]	1.03	1.50	2.87	0.78	0.08	0 75	1.21	[14.56]
1861	1.76	0.50	[1.08]	T	3.14	3.38	4.23	......	......	......	......	......	......
1864	......	......	......	......	......	......	......	......	[illegible].11	......	......	......	......
1866	......	......	......	......	......	......	......	......	1.15	......	......	......	......
1867	......	......	......	......	......	......	......	1.50	0.50	......	......	......	......
1868	......	......	......	......	......	......	......	......	1.02	......	0.39	0.62	......
1869	0.49	1.36?	1.18	2.75	4.17	3.70?	1.41	2.45	[2.12]	0.88	0.42	3.92	[24.83]
1870	0.00	0.00	2.20	0.22	0.18	2.08	4.45	4.70	0.94	2.84	0.00	0.36	17.97
1871	1.68	0.07	4.28	0.00	0.65	0.14	5.80	1.13	2.10	[1.58]	[0.81]	3.00	[21.27]
1872	0.66	0.63	0.37	0.66	0.00	2.29	4.78	3.19	3.27	3.02	2.54	[1.34]	[22.75]
1881	......	......	......	......	......	......	......	1.05	2.65	......	0.76	0.35	......
1882	0.95	......	0.26	......	......	......	......	......	......	......	......	......	......
1884	1.20	1.40	0.70	0.30	1.73	2.11	2.48	6.98	3.21	2.65	0.30	1.44	24.50
1885	0.72	0.63	0.62	0.50	0.68	1.35	3.17	2.57	1.36	0.18	0.50	0.35	12.63
1886	0.36	0.17	0.50	1.50	[1.02]	1.64	4.71	5.45	4.29	1.32	0.15	0.08	[21.16]
1887	0.01	0.11	0.25	0.04	0.72	2.50	2.59	3.49	4.21	1.75	0.17	0.93	16.27
1888	0.22	1.09	2.82	1.69	0.25	0.88	1.60	4.51	1.16	2.14	1.53	0.15	18.04
1889	1.33	0.39	0.85	0.24	0.17	2.51	2.36	0.89	2.76	1.90	1.04	0.04	14.49
1890	0.37	0.08	0.12	0.57	0.00	1.05	1.92	2.93	......	......	......	......	......
Means	0.67	0.72	1.09	0.67	0.91	1.87	3.30	4.04	2.31	1.61	0.76	1.10	19.05

SUMNER, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864	......	......	......	......	1.01	3.88	2.43	1.61	1.14	0.65	1.48	0.60	......
1865	0.23	1.32	0.45	0.07	0.38	1.50	10.63	4.37	1.07	3.65	0.03	3.57	27.27
1866	0.18	0.09	0.51	0.20	......	......	......	......	0.35	0.52	0.80	0.10	......

Monthly and annual precipitation at forty-eight stations in New Mexico—**Continued.**

SUMNER, FORT, N. MEX.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	[0.23]	0.00	[0.97]	0.43	0.54	0.70	0.80	0.50	3.15	0.70	0.00	[1.24]	[9.26]
1868	0.00	0.00	2.20	0.11	0.80	1.60	0.87	3.01	1.65	0.52	0.91	0.70	12.37
1869	0.52	0.31	0.72	0.99	2.51	2.09	1.16	......	......	......	......	......	....
Means	0.23	0.34	0.97	0.36	1.05	1.95	3.18	2.37	1.47	1.21	0.64	1.24	15.01

TAOS, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	[0.90]	[0.10]	0.24	1.08	0.17	1.21	2.70	1.64	1.22	0.78	0.54	0.52	[11.10]
1890	0.90	0.62	0.89	1.98	0.00	0.29	2.55	2.64	0.88	......	......	......	....
Means	0.90	0.36	0.56	1.53	0.08	0.75	2.62	2.14	1.05	0.78	0.54	0.52	11.83

TRES PIEDRAS, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.90	[0.30]	[0.30]	0.57	0.12	1.26	3.30	1.78	1.05	0.82	2.60	1.60	[14.60]
1890	2.40	2.15	1.46	2.50	......	......	......	......	......	......	......	......	....
Means	1.65	1.22	0.88	1.54	......	......	......	......	......	......	......	......	17.82

THORN, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1854	0.00	0.00	0.14	0.20	1.10	0.08	2.23	6.01	3.50	0.00	0.99	0.35	14.60
1855	0.09	0.20	0.80	0.20	0.00	0.00	3.61	1.21	4.97	0.39	1.94	0.00	13.44
1856	1.01	1.58	1.03	0.00	0.08	0.74	0.17	1.55	6.35	0.25	0.60	0.15	13.51
1857	0.00	2.51	[0.00]	0.01	0.00	0.00	4.70	5.10	6.13	1.00	0.00	1.10	[20.55]
1858	1.30	0.00	0.04	0.10	0.00	0.22	2.52	5.09	0.20	0.00	0.04	1.07	10.58
Means	0.48	0.86	0.40	0.10	0.24	0.21	2.65	3.79	4.23	0.33	0.71	0.53	14.53

TULEROSA, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	0.55	0.96	1.30	10.48	1.76	T	0.38	7.08	....
1874	2.24	4.94	1.38	1.34	[0.55]	0.30	6.00	6.42	0.64	2.58	0.70?	......	....
Means	2.24	4.94	1.38	1.34	0.55	0.63	3.65	8.45	1.20	1.29	0.54	7.08	33.29

UNION, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1851	......	......	......	......	......	......	......	......	4.63	0.61	1.97	0.33	....
1852	0.48	0.59	0.00	0.24	0.73	7.05	2.73	5.49	3.04	3.44	2.83	0.02	26.64
1853	0.19	0.08	0.77	0.32	0.91	0.11	4.19	3.42	1.59	1.29	0.38	0.18	13.43
1854	0.07	0.02	0.63	0.46	0.50	0.69	3.98	1.75	2.99	0.88	1.80	0.60	14.37
1855	0.00	0.00	0.40	0.00	2.88	2.12	4.37	1.46	3.83	0.40	2.20	0.91	18.57
1856	0.76	1.08	1.11	1.06	0.56	0.65	3.39	6.74	4.04	0.00	0.70	0.12	20.21
1857	0.70	0.11	0.12	0.98	0.25	2.49	4.03	2.96	4.33	3.32	1.10	0.55	20.94
1858	1.13	1.36	1.15	0.40	1.20	3.20	5.80	5.71	0.40	0.30	0.72	1.42	22.79
1859	0.25	0.00	1.00	0.65	0.00	4.80	5.76	7.18	3.55	1.10	0.00	0.25	24.54
1860	1.28	0.92	[0.48]	0.44	[1.57]	3.45	1.54	3.95	1.50	T	0.56	0.80	[16.49]
1861	1.09	0.30	T	0.61	T	4.14	?17.30	?14.80	?8.80	0.00	0.00	0.00	47.07?
1862	0.20	0.12	0.76	0.28	1.18	2.39	12.60	3.30	[2.04]	[0.64	0.29	0.25	[24.05]
1863	0.75	T	0.65.	0.03	0.60	......	......	......	......	......	......	......	....
1864	0.00	......	......	......	......	......	......	......	......	......	......	......	....
1865	......	......	......	......	......	0.00	......	......	......	......	......	......	....
1866	......	......	......	......	......	......	......	......	......	0.32	......	......	....
1867	......	......	0.00	0.18	0.67	0.17	0.93	4.84	1.01	1.10	0.00	0.00	....
1868	......	......	1.25	0.31	0.76	1.04	3.72	5.23	0.20	0.27	0.00	......	....
1869	......	......	......	0.41	3.76	2.80	0.30	0.70	0.00	0.00	0.20	1.00	....
1870	0.20	0.00	0.10	0.10	T	1.60	4.80	1.75	1.70	0.10	T	0.03	10.38
1871	0.50	[0.44]	0.04	0.16	0.20	1.02	2.49	5.31	2.77	0.38	0.22	0.10	[13.63]
1872	0.50	0.54	0.56	0.76	3.46	4.05	8.12	3.47	[2.04]	T	0.24	T	[23.74]

Monthly and annual precipitation at forty-eight stations in New Mexico—Continued.

FORT UNION, N. MEX.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	[0.58]	0.30	0.04	0.04	[1.57]	3.38	3.30	7.38	0.84	T	0.00	0.22	[17.65]
1874	0.54	1.26	0.32	0.94	4.38	1.10	1.24	1.68	3.04	1.24	0.86	1.08	17.68
1875	0.20	0.30	2.52	0.20	5.96	1.50	6.70	5.16	4.76	0.00	0.84	T	28.14
1876	0.20	T	0.08	0.30	0.80	2.24	4.40	4.36	3.08	0.04	[0.51]	[0.58]	[16.59]
1877	0.12	2.70	0.36	2.08	1.50	0.24	4.50	4.90	4.82	0.16	0.20	0.00	22.18
1878	0.12	[0.44]	1.16	[0.87]	0.42	4.46	[4.28]	3.88	0.18	0.00	3.90	0.30	[20.01]
1879	0.40	0.30	T	0.12	0.06	0.30	2.46	0.48	0.36	1.24	[0.51]	0.12	[6.35]
1880	[0.58]	[0.44]	0.08	T	1.28	0.25	7.98	[4.68]	0.82	0.89	0.64	0.48	[18.12]
1881	1.29	0.90	0.30	2.03	1.51	0.30	4.74	4.59	2.50	3.74	0.56	0.10	22.56
1882	0.32	[0.44]	[0.48]	0.88	1.20	2.24	2.60	3.30	T	T	[0.51]	0.16	[12.13]
1883	0.14	0.12	[0.48]	0.22	0.10	0.28	2.80	4.81	2.96	1.94	T	0.12	[13.97]
1884	0.18	0.54	0.28	0.28	4.93	3.06	0.76	7.80	1.08	[0.64]	T	2.00	[21.55]
1885	0.24	0.30	0.42	0.72	2.15	3.54	2.51	4.76	1.24	0.58	0.10	1.42	17.98
1886	0.98	T	0.50	3.22	0.18	1.66	1.18	8.04	3.94	0.96	0.35	0.45	21.46
1887	0.45	[0.44]	0.03	1.91	2.72	4.23	2.83	1.82	1.70	1.70	0.40	3.75	[21.98]
1888	3.10	0.09	2.05	2.16	0.70	2.58	4.36	8.28	0.18	0.82	0.92	0.30	25.54
1889	1.20	T	0.00	0.50	1.27	2.60	2.73	2.30	0.58	0.45	0.45	T	12.08
1890	T	0.11	0.14	3.96	0.03	1.30	5.10	2.29	0.59	......	......	......	......
Means	0.55	0.43	0.52	0.79	1.41	2.14	4.28	4.60	2.34	0.79	0.73	0.56	19.14

WEBSTER, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1852	[0.71]	1.51	0.13	4.45	1.23	4.89	4.79	4.29	3.47	1.19	3.48	0.30	[30.44]
1853	0.40	0.50	0.00	0.00	1.05	1.08	2.55	1.21	1.26	0.40	0.26	0.08	8.79
Means	0.56	1.00	0.06	2.22	1.14	2.98	3.67	2.75	2.36	0.80	1.87	0.19	19.44

WATROUS, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	......	......	......	0.80	2.75	4.34	2.78	4.03	2.85	1.75	[0.40]	[3.75]	......
1888	[3.10]	0.25	0.30	1.32	0.00	0.98	2.11	4.80	0.50	0.70	1.35	0.00	[15.41]
Means	[3.10]	0.25	0.30	1.06	1.38	2.66	2.44	4.42	1.68	1.22	0.88	1.88	21.27

WINGATE, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864	......	......	......	......	......	......	......	......	1.10	......	......	0.34	......
1865	0.20	1.25	......	0.16	0.00	0.09	1.89	2.42	1.28	1.45	0.15	0.33	......
1866	0.25	0.00	......	0.32	......	......	......	......	0.83	0.60	......	0.02	......
1867	0.61	0.60	0.57	0.47	0.20	0.00	7.60	4.60	[1.30]	4.00	0.00	2.75	[23.30]
1868	0.75	[1.63]	0.25	0.85	0.00	0.00	4.90	[2.39]	1.30	0.50	0.40	1.40	[14.37]
1869	3.30	4.20	0.20	1.50	0.80	1.48	1.50	3.40	0.40	0.11	1.56	0.69	19.14
1870	0.10	0.87	1.86	1.20	0.20	0.66	3.88	3.23	0.73	1.50	0.15	2.21	[16.59]
1871	2.65	5.05	0.58	1.80?	0.31	[0.67]	2.37	1.20	2.80	1.20	1.33	2.29	[22.25]
1872	3.30	1.59	0.63	1.99	3.00	2.25	1.10	3.15	0.50	2.75	[0.71]	0.50	[21.47]
1873	0.75	11.25	[0.94]	0.15	0.20	3.15	0.26	2.65	3.10	0.50	0.55	2.00	[25.00]
1874	1.85	0.44	0.55	0.07	0.30	0.03	1.94	1.10	0.10	0.48	0.22	0.47	7.55
1875	0.33	1.07	0.91	0.14	0.50	0.33	1.23	1.01	3.19	0.10	1.55	0.37	10.73
1876	0.75	0.48	1.55	0.22	0.24	0.17	2.32	2.44	1.54	0.80	0.61	0.21	11.33
1877	0.91	0.29	0.51	2.70	1.47	0.66	0.61	0.36	0.97	0.53	0.20	0.88	10.09
1878	1.68	1.05	1.88	1.27	0.52	1.18	3.78	5.90	0.90	0.00	2.12	0.59	20.87
1879	0.53	1.36	0.70	0.23	0.00	0.00	0.37	0.29	0.80	0.68	0.51	0.90	6.37
1880	0.72	0.21	0.96	0.72	0.04	0.19	3.55	1.49	0.31	1.81	0.20	0.86	11.06
1881	0.16	0.05	0.99	0.42	0.18	0.00	3.48	3.18	2.55	2.38	0.19	0.35	13.93
1882	1.24	1.02	0.40	0.40	0.14	2.06	3.08	2.90	0.72	0.00	1.68	0.68	14.32
1883	1.18	0.60	1.24	0.22	0.78	0.00	4.64	2.74	0.46	1.14	0.00	1.44	14.44
1884	[1.14]	0.50	1.16	[1.14]	1.04	1.18	1.78	4.64	0.76	1.66	[0.71]	0.74	[16.45]
1885	0.46	......	......	......	1.14	0.68	2.28	1.14	1.32	0.86	1.46	1.00	......
1886	2.52	0.94	0.82	1.08	0.24	0.34	0.40	2.96	1.06	1.50	0.46	0.10	12.42
1887	0.52	1.72	0.02	0.90	0.22	1.24	2.94	3.20	3.26	1.10	1.04	1.10	17.26
1888	1.08	1.30	1.38	2.36	0.24	0.01	2.02	0.24	0.42	0.50	0.76	1.06	11.40
1889	1.15	1.60	......	......	......	0.30	2.54	0.75	......	0.41	0.47	1.10	......
1890	1.44	1.79	2.70	1.00	0.00	0.10	2.03	2.29	......	......	......	......	......
Means	1.14	1.63	0.95	0.89	0.49	0.67	2.52	2.39	1.29	1.09	0.71	0.94	14.71

APPENDIX No. 23.

MEAN MONTHLY AND ANNUAL TEMPERATURE FOR THIRTY STATIONS IN NEW MEXICO.

The prefatory note to Appendix No. 22, with reference to interpolated values, applies also to the bracketed figures in the temperature tables. Letters of the alphabet set against the data for any month indicate the number of days missing from the record for that month; thus "*c*" indicates three days missing.

ALBUQUERQUE, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1849	......	......	......	......	......	......	......	......	69.1	57.0	48.3	38.2	......
1850	35.2	40.5	46.2	50.2	61.0	70.7	75.9	74.4	68.1	55.5	40.8	26.0	53.7
1851	30.7	36.1	47.3	53.0	61.8	70.2	75.7	......	......	......	......	......	......
1852	......	......	......	......	......	......	......	......	......	......	42.9	38.4	......
1853	42.0	40.2	46.4	59.2	65.1	73.4	78.6	[76.1]	70.9	58.8	47.9	41.1	[58.3]
1854	36.5	40.7	49.4	59.0	62.5	73.8	78.9	76.4	69.4	62.6	40.7	36.5	57.2
1855	34.6	40.6	50.4	59.2	67.3	......	......	......	......	......	42.0	29.4	......
1856	29.5	36.6	46.8	58.4	67.1	81.8	83.2	80.3	72.9	55.8	39.7	28.2	56.7
1857	35.1	42.3	50.7	54.5	62.3	68.8	78.2	78.4	67.2	55.8	47.5	37.8	56.6
1858	35.0	39.4	46.8	53.9	60.9	67.8	75.8	71.9	65.1	56.7	43.1	29.1	53.8
1859	32.4	41.8	43.4	55.3	66.6	72.7	72.7	72.8	63.9	52.6	35.3	17.6	52.3
1860	21.9	31.2	46.8	54.6	70.1	77.6	82.6	79.6	69.4	58.7	41.8	36.9	55.9
1861	23.9	32.3	51.4	60.0	67.5	74.7	76.9	72.4	66.5	53.9	45.4	35.1	55.0
1862	......	......	......	......	......	......	......	......	......	......	......	31.4	......
1863	32.3	37.1	48.8	54.8	66.6	76.5	79.9	75.6	71.0	56.0	41.5	32.9	56.1
1864	30.1	39.5	41.1	56.7	66.6	75.6	78.4	77.4	70.1	51.8	38.7	32.7	54.9
1865	30.5	35.0	43.3	53.2	73.7	77.8	76.8	77.8	72.3	61.0	50.0	36.5	[57.3]
1866	35.5	43.6	......	......	......	......	......	......	65.3	58.5	46.0	37.8	......
1867	37.6	32.5	46.5	57.0	......	......	80.3	......	......	......	......	......	......
1889	[30.3]	[35.4]	[49.0]	58.1	63.0	70.1	78.3	*b*76.6	*c*65.0	63.8	39.8	43.8	[56.2]
1890	34.5	42.8	48.4	......	68.8	71.7	77.8	75.0	67.9	......	......	......	......
Means	32.6	38.2	47.2	56.1	65.7	73.5	78.1	76.1	68.5	57.2	43.0	33.9	55.8

BASCOM, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864	[37.2]	42.8	45.6	61.5	72.1	75.0	84.5	89.2	80.7	47.3	40.8	37.3	[59.5]
1865	34.8	39.1	53.2	60.9	83.2	80.6	78.3	81.3	76.0	62.4	56.6	36.0	61.9
1866	40.8	46.9	57.6	55.3	......	......	......	......	......	......	......	......	......
1869	[36.0]	[44.0]	46.2	58.4	69.0	75.9	82.5	81.9	70.2	52.8	46.1	[28.1]	[57.6]
1870	32.2	46.1	45.8	59.3	71.8	75.4	83.2	75.8	64.5	51.0	[42.9]	[26.5]	[56.2]
Means	36.2	43.8	49.7	59.1	74.0	76.7	82.1	82.0	72.8	53.4	46.6	32.0	59.0

BAYARD, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	36.4	39.6	41.1	52.9	59.2	71.6	74.2	71.8	68.9	62.1	46.7	46.0	[55.9]
1868	36.8	41.8	48.4	52.7	58.0	70.8	71.3	68.6	66.6	58.3	42.6	36.4	54.4
1869	32.6	34.3	40.4	46.1	50.8	64.9	69.5	69.7	67.1	56.2	[44.3]	38.5	51.2
1870	39.8	42.6	46.1	54.9	65.9	69.6	69.5	69.5	63.9	54.9	45.6	33.8	54.7
1871	36.0	37.0	46.5	52.6	64.2	75.3	74.2	71.8	68.2	55.0	44.2	41.3	55.5
1872	34.1	39.8	42.2	49.4	64.5	72.7	72.5	69.5	65.1	56.8	42.0	41.7	54.2
1873	39.4	39.2	50.2	53.1	61.4	73.0	77.2	69.2	67.2	57.4	47.3	38.3	56.1
1874	41.3	36.6	43.6	48.2	62.5	74.1	74.5	73.8	67.4	56.7	45.8	37.0	55.1
1875	38.4	38.6	43.8	52.5	66.4	76.0	69.0	70.2	62.7	58.3	43.9	35.9	54.6
1876	33.4	36.2	39.2	54.3	62.3	72.1	73.1	69.8	64.6	54.3	44.5	39.1	53.6
1877	41.6	41.4	50.8	47.8	58.2	72.7	75.8	74.0	66.2	54.1	42.1	37.2	55.2
1878	31.6	38.2	45.6	......	......	......	......	......	......	......	......	......	......
1882	......	......	......	......	......	68.2	......	......	......	......	......	......	......
1886	39.3	47.0	44.5	54.7	69.9	73.8	77.1	72.7	[67.0]	58.4	[45.0]	46.9	[58.0]

Mean monthly and annual temperature for thirty stations in New Mexico—Continued.

BAYARD, FORT, N. MEX.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	43.9	43.3	56.4	55.9	65.8	75.0	75.9	74.1	69.9	62.0	52.1	37.7	59.3
1888	41.0	43.5	45.0	59.2	64.1	76.2	75.0	72.2	71.8	63.9	50.0	45.3	58.9
1889	37.8	39.0	47.5	56.6	61.6	69.4	73.3	72.7	64.5	57.7	45.1	[40.0]	[55.4]
1890	......	42.2	47.6	52.8	62.7	68.0	72.6	67.7	64.8	......	......	......	......
Means	37.9	40.0	45.8	52.7	62.3	72.0	73.5	71.3	66.7	57.7	45.4	39.7	55.4

CANTONMENT BURGWIN, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1850	......	......	......	......	51.5	63.2	......	......	......	......	......	......	......
1854	26.9	......	......	......	......	......	......	......	56.3	50.4	34.9	28.2	......
1855	25.8	32.7	39.7	48.4	53.8	62.4	66.5	65.1	59.0	48.9	30.7	20.5	46.1
1856	14.6	23.5	33.7	47.4	56.8	70.7	73.0	66.4	57.2	42.1	27.4	15.4	44.0
1857	20.1	27.1	41.7	46.9	54.0	66.4	70.8	66.5	58.1	45.9	33.6	22.1	46.1
1858	18.8	30.9	37.8	45.2	53.9	62.4	67.3	60.4	60.6	42.1	27.4	15.3	43.5
1859	19.5	32.5	32.4	40.9	55.9	66.8	65.0	64.6	56.2	50.5	38.9	23.4	45.6
1860	26.6	26.1	40.0	46.7	......	......	......	......	......	......	......	......	......
Means	21.8	28.8	37.6	45.9	54.3	65.3	68.5	64.6	57.9	46.6	32.2	20.8	45.4

CEBOLLETA, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1849	......	......	......	......	......	......	......	......	......	......	......	35.4	......
1850	34.8	40.1	45.2	49.8	59.0	68.8	76.3	76.9	70.3	59.1	41.0	25.5	53.9
1851	31.0	31.8	43.8	52.9	64.2	76.2	78.6	74.4	66.6	59.1	41.0	30.5	54.2
Means	32.9	36.0	44.5	51.4	61.6	72.5	77.4	75.6	68.4	59.1	41.0	30.5	54.2

COOLIDGE, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	67.0	62.4	49.5	[38.0]	[32.0]	......
1889	h18.6	22.5	32.1	50.5	56.2	65.8	73.2	74.0	59.0	49.0	37.6	36.9	48.0
1890	25.4	36.8	35.0	35.9	58.2	64.0	71.3	64.7	......	......	......	......	......
Means	22.0	29.6	33.6	43.2	57.2	64.9	72.2	68.6	60.7	49.2	37.8	34.4	47.8

CONRAD, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1851	......	......	......	......	......	......	......	......	......	60.9	41.3	36.6	......
1852	33.3	45.1	53.3	58.0	66.6	73.1	78.4	78.2	68.6	56.4	42.9	40.2	57.8
1853	38.7	39.8	50.5	63.7	66.8	75.4	79.8	75.9	71.4	57.3	46.7	38.4	58.7
1854	36.8	41.1	50.1	......	......	......	......	......	......	......	......	......	......
Means	36.3	42.0	51.3	60.8	66.7	74.2	79.1	77.0	70.0	58.2	43.6	38.4	58.1

CRAIG, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1854	38.0	43.9	53.2	60.8	63.5	75.5	82.1	78.8	72.8	61.9	47.5	38.9	60.0
1855	40.5	46.0	57.2	63.7	73.3	79.3	79.7	80.2	74.6	62.7	46.8	35.6	61.6
1856	32.3	41.3	57.0	69.2	76.5	86.1	86.3	85.5	73.6	60.5	43.5	31.8	62.2
1857	38.7	45.3	56.8	61.5	70.9	82.2	84.5	78.1	68.6	58.8	44.5	32.5	60.2
1858	35.8	41.8	47.5	60.8	68.4	77.8	79.3	75.7	72.3	60.6	44.8	33.4	58.4
1859	35.1	47.9	49.7	56.7	71.5	80.0	79.1	77.7	68.0	58.1	48.8	31.7	58.7
1860	38.1	40.9	54.8	61.0	70.8	79.6	80.5	78.4	72.0	58.9	44.8	41.8	60.1
1861	34.5	44.1	55.0	62.7	71.2	79.2	85.1	79.6	70.5	57.2	48.5	41.8	60.8
1862	46.7	43.0	53.2	63.8	73.5	79.6	77.6	86.4	78.6	56.8	46.1	37.2	61.9
1865	38.0	39.5	51.2	59.0	76.6	79.4	81.0	79.1	74.2	63.5	49.8	34.8	60.5
1866	40.1	48.8	56.9	69.5	68.0	78.7	81.9	80.2	73.1	64.6	49.3	42.5	62.0
1867	39.7	41.9	49.6	61.7	......	......	......	......	74.0	62.3	49.5	48.9	......

Mean monthly and annual temperature for thirty stations in New Mexico—Continued.

CRAIG, FORT, N. MEX.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	38.9	43.4	52.7	59.6	68.8	80.4	80.8	75.7	69.6	59.4	43.3	36.9	59.1
1869	35.3	39.9	53.3	56.0	69.7	76.2	81.5	77.3	72.0	57.2	51.0	33.5	58.6
1870	38.0	48.7	49.2	61.8	71.5	75.4	78.2	74.5	69.1	58.4	48.0	30.8	58.6
1871	35.6	43.8	......	......	......	......	......	77.3	71.0	56.4	46.7	36.3	......
1872	28.7	37.6	48.2	56.8	72.0	76.3	[81.1]	[78.7]	[71.7]	57.4	40.1	41.2	[57.5]
1873	37.2	41.7	57.0	52.2	65.7	78.7	85.0	75.3	73.2	60.3	50.2	39.3	59.6
1874	42.1	41.8	52.0	55.3	70.8	82.4	84.8	83.1	73.5	63.6	50.2	38.3	61.5
1875	41.2	41.7	47.3	56.4	71.0	77.4	74.7	76.9	67.3	61.4	49.3	38.9	58.6
1876	37.0	42.1	47.6	61.4	67.4	77.8	79.7	76.2	69.0	56.7	44.1	34.4	57.8
1877	39.5	41.4	54.9	53.3	63.6	75.7	79.9	77.4	69.2	59.0	41.8	36.5	57.7
1878	30.8	39.7	50.2	59.2	68.4	76.8	80.9	......	......	......	......	......	......
Means	37.5	43.1	52.5	59.7	70.1	78.8	81.1	78.7	71.7	59.9	46.8	37.1	59.8

CUMMINGS, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	44.4	47.0	54.9	62.5	70.2	76.6	82.3	78.8	76.5	65.5	60.3	47.3	63.9
1870	49.2	51.2	55.0	66.1	74.6	79.1	79.8	78.0	76.6	67.7	59.3	44.5	65.1
1871	47.8	53.6	53.6	59.8	72.7	83.7	82.5	69.7	76.6	68.9	58.8	58.0	65.5
1872	51.1	56.1	58.1	62.4	73.8	82.9	75.2	75.8	71.4	59.2	46.5	45.8	63.2
1873	42.7	45.9	56.2	58.0	67.3	77.1	80.6	......	......	......	......	......	......
Means	47.0	50.8	55.6	61.8	71.7	79.9	80.1	75.6	75.3	65.3	56.2	48.9	64.0

DEMING, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	......	......	......	......	......	......	......	......	......	47.2	44.7	......
1882	41.5	[47.9]	[57.8]	57.1	72.8	79.9	84.5	82.7	73.4	65.4	52.6	42.8	[63.2]
1883	36.8	[47.9]	[57.8]	61.7	72.3	80.9	82.4	82.5	77.4	69.0	57.8	49.1	[64.6]
1884	42.8	48.0	57.7	61.4	69.8	77.5	85.6	81.1	76.8	69.9	54.8	53.1	64.9
1885	[42.4]	48.5	60.1	69.6	76.7	[81.1]	88.7	87.0	81.2	72.4	57.2	48.1	[67.8]
1886	44.9	50.9	53.4	62.7	79.2	83.9	87.7	85.6	77.6	67.9	52.0	52.4	66.5
1887	47.4	51.3	61.5	66.4	71.4	78.3	88.0	82.8	75.2	65.3	54.8	39.6	67.7
1888	43.2	44.7	61.7	[63.6]	76.7	87.8	87.4	91.5	82.0	66.8	54.8	46.7	[67.2]
1889	39.6	41.8	51.9	65.4	74.5	81.8	86.7	87.1	74.0	65.1	52.4	48.2	64.1
1890	42.8	50.4	58.4	64.4	75.2	78.9	80.7	82.2	74.4	......	......	......	......
Means	42.4	47.9	57.8	63.6	74.3	81.1	86.4	85.0	77.3	67.7	53.7	47.2	65.4

FILLMORE, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1851	......	......	......	......	......	......	......	......	79.6	63.2	48.2	44.1	......
1852	39.7	49.7	48.4	56.5	68.7	78.0	79.6	76.4	74.3	59.0	46.0	44.1	60.0
1853	41.7	45.0	52.7	65.5	72.5	81.8	85.4	81.4	77.5	65.0	57.5	50.8	64.7
1854	48.6	50.4	59.7	66.1	68.6	80.6	85.1	81.2	77.4	70.4	53.2	46.7	65.7
1855	50.1	50.6	55.4	64.4	75.4	83.2	83.4	82.5	77.2	65.6	53.4	47.0	65.7
1856	43.3	46.8	57.4	69.0	75.4	85.0	85.0	83.5	75.5	65.6	53.5	41.3	65.1
1857	46.7	49.2	61.3	63.9	75.4	83.3	84.8	81.8	73.1	64.1	54.9	41.4	65.0
1858	40.0	46.4	53.4	66.8	70.7	80.8	82.7	80.8	76.6	66.3	47.5	40.0	62.7
1859	35.1	51.0	52.3	63.1	76.8	85.9	78.1	83.9	74.9	66.2	40.8	33.9	61.8
1860	44.9	47.4	58.4	58.3	66.4	74.6	80.0	81.7	75.0	71.2	56.1	45.7	63.3
1861	44.4	43.2	54.4	63.8	70.4	......	......	......	......	......	......	......	......
Means	43.4	48.0	55.3	63.7	72.0	81.5	82.7	81.5	76.1	65.7	51.1	43.5	63.7

FAUNTLEROY, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	......	......	......	......	......	......	......	......	......	51.5	36.6	32.5	......
1861	25.0	......	......	49.5	62.2	70.5	74.2	71.7	61.0	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

Mean monthly and annual temperature for thirty stations in New Mexico—Continued.

GALLINAS SPRING, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	[35.0]	[43.4]	*f*48.0	*g*56.9	*c*62.4	*g*71.0	[74.0]	*d*75.0	68.3	*d*56.8	*e*51.5	*c*42.1	[57.0]
1886	*c*32.6	*f*44.4	*d*45.1	*c*56.0	*b*71.4	*d*77.2	79.9	*d*72.7	*b*66.6	58.0	*b*43.8	*a*42.6	57.5
1887	*a*38.6	*c*42.2	*c*51.6	55.0	*b*65.8	*a*72.5	*d*76.1	*a*74.7	69.4	54.9	*d*45.1	*a*35.2	56.8
1888	39.6	*a*45.4	46.8	58.7	64.0	74.1	72.2	73.0	67.5	56.1	*a*47.0	41.6	57.2
1889	33.2	40.3	48.6	58.2	64.6	71.6	78.0	77.4	68.4	60.1	40.5	49.2	57.5
1890	41.8	44.8	50.0	57.4	66.7	73.6	77.0	75.6	67.3				
Means	36.8	43.4	48.4	57.0	65.8	73.3	76.0	74.6	68.0	57.2	45.6	42.1	57.4

LA MESILLA, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877								80.2	73.8	60.2	46.7	42.2	
1878	39.0	45.4	52.6	57.6	68.1	76.1	79.6	79.2	71.0	61.5	48.2	39.2	59.8
1879	40.9	50.4	59.7	59.7	71.8	77.1	80.4	76.4	75.1	62.1	48.4	44.5	62.2
1880	45.7	43.2	51.8	59.8	70.2	78.3	77.9	75.1	69.3	58.3	44.3	42.2	59.7
1881	37.7	47.6	50.5	63.8	70.0	79.6	79.5	76.5	69.5	63.7	45.6	44.5	60.7
1882	42.2	45.7	53.1	58.3	65.7	75.3	80.4						
Means	41.1	46.5	53.5	59.8	69.2	77.3	79.6	77.5	71.7	61.2	46.6	42.5	60.5

LAS VEGAS, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1850	38.2	34.3	41.3	46.2	51.8	64.2	67.9	73.0	66.5	48.9	33.0	21.7	48.9
1851	28.6	28.1	33.2	47.9	61.1	71.5	74.9						
1875	[31.9]	[31.7]	39.6	50.7	63.2	71.3	67.3	69.4	61.3	54.8	42.9	37.4	[51.8]
1876	33.8												
1887									54.9	47.2	47.6	29.8	
1888	34.9	37.3	39.7	53.8	56.6	69.2	70.9	68.4	58.1	49.9	38.6	35.2	51.0
1889	24.0	27.2	41.5	52.4	59.0	60.4	72.0	67.1	56.2	41.9	34.5	44.4	48.6
1890	35.4	36.8			58.0								
Means	32.4	32.6	39.1	50.2	58.3	67.3	70.6	69.5	59.4	49.1	39.3	33.7	50.1

LORDSBURG, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888												43.9	
1889	39.2	42.4	50.5	62.3	75.4	81.6	85.2	87.2	73.1	62.4	45.8	50.6	63.0
1890	43.7	45.5	55.8	[60.0]	64.4	83.1	85.2	78.6	74.4				
Means	41.4	44.0	53.2	61.1	69.9	82.4	85.2	82.9	73.8	62.4	45.8	47.2	62.5

LOS PINOS, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1863	38.3	44.4	53.4	57.7	68.5	78.3	82.9	77.3	66.1	56.9	49.3	35.1	59.0
1864	29.2	30.3	44.8							52.0	37.0	32.5	
1865	32.0	39.8	52.4	54.6	69.0	73.6	76.6	75.8	66.1	58.6	37.0	31.7	55.6
1866	32.8	44.9	51.4	[56.0]	64.5								
Means	33.1	39.8	50.5	56.1	67.3	76.0	79.8	76.6	66.1	55.8	41.1	33.1	56.3

McRAE, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864			46.3	65.8	72.9	80.8	79.4					45.3	
1865	41.0	42.4	46.6	56.6									
1868				62.2	70.4				73.6	63.4	48.1	38.9	
1869	37.1	37.0	51.9	58.0	71.9	77.0	83.8	79.4	7[illegible].5	60.7	52.3	36.2	60.1
1870	37.5	[41.8]	[53.1]	65.9	[73.3]	77.8	80.9	76.7	72.3	60.2	45.3	34.6	[60.0]

***Mean monthly and annual temperature for thirty stations in New Mexico*—Continued.**

MCRAE, FORT, N. MEX.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	41.4	52.7	......	......	......	......	......	......	......	......	39.5	......
1872		......	......	64.1	77.8							43.1	
1873	[39.8]	45.8	57.4	60.3	[72.9]	79.2	87.4	78.6	75.2	62.3	49.6	38.6	[62.3]
1874	42.9	36.5	54.6	55.6	71.1	79.5	82.3	78.9	70.2	61.4	45.0	37.2	59.6
1875	g39.7	......	......	......	......	......	......	......	......	65.1	53.1	40.4	......
1876	40.6	......	......	......	......	......	......	......	......	......	......	......	......
Means	39.8	40.8	51.8	61.1	72.9	78.9	82.8	78.4	73.4	62.2	48.9	39.3	60.9

PLUMMER, CAMP, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	......	......	......	......	......	......	......	......	......	47.7	29.4	30.4	......
1868	16.7	18.1	25.6	42.4	50.0	62.2	66.9	61.9	54.7	44.2	31.2	20.4	41.2
1869	19.9	21.0	33.6	41.1	......	......	......	......	......	......	......	......	......
Means	18.3	19.6	29.6	41.8	50.0	62.2	66.9	61.9	54.7	46.0	30.3	25.4	42.2

PUERTO DE LUNA, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	[32.7]	[40.0]	49.3	53.5	63.6	74.4	82.3	73.6	69.1	58.7	45.1	36.8	[56.6]
1885	31.4	39.4	47.4	57.4	62.8	74.4	79.1	76.0	67.7	54.9	49.5	41.0	56.8
1886	34.0	41.1	45.1	54.1	68.7	71.7	78.2	72.8	63.8	......	......	......	......
Means	32.7	40.2	47.3	55.0	65.0	73.5	79.9	74.1	66.9	56.8	47.3	38.9	56.5

SANTA FÉ, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1849	32.9	35.1	43.2	53.0	54.7	71.3	72.1	70.2	64.4	48.9	39.6	33.5	51.6
1850	30.2	31.9	40.9	50.7	......	......	76.2	75.2	......	55.8	......	23.2	......
1851	34.0	34.2	......	49.4	59.0	69.4	72.9	......	......	......	......	......	......
1852	......	......	......	......	......	......	......	......	59.6	47.9	34.4	29.6	......
1853	31.2	28.0	37.9	53.9	60.3	66.4	69.4	66.7	62.7	48.3	40.3	31.4	49.7
1854	28.5	34.1	41.5	49.8	54.2	68.2	71.8	67.7	61.0	55.6	40.0	33.3	50.5
1855	31.9	36.3	40.1	50.6	59.6	68.7	73.0	70.0	63.6	54.8	35.1	26.6	50.9
1856	24.2	29.7	40.1	50.0	58.9	73.6	74.3	71.9	64.4	51.3	31.9	21.0	49.5
1857	25.5	39.8	46.6	49.8	57.5	68.7	71.5	68.8	60.3	49.9	37.6	29.3	50.4
1858	35.0	33.5	40.0	48.1	57.6	66.4	69.2	66.0	63.0	49.3	34.4	24.1	48.9
1859	23.9	32.6	35.5	43.6	58.2	70.3	69.3	68.9	57.9	50.6	38.1	23.5	47.7
1860	29.3	29.3	42.1	47.4	58.7	65.8	70.3	68.6	68.7	57.7	37.8	32.6	50.7
1861	21.0	32.4	43.2	53.0	62.1	72.2	74.6	71.3	66.7	52.8	42.5	38.2	52.5
1862	34.8	30.6	......	......	......	......	......	......	63.0	54.0	40.7	32.5	......
1863	27.1	32.7	45.7	53.9	54.9	69.9	73.7	70.6	67.1	53.3	37.2	26.6	51.1
1864	24.9	35.5	36.4	49.2	60.0	66.1	69.3	71.9	66.6	48.7	36.3	33.9	49.9
1865	26.9	32.8	38.4	46.7	66.6	70.1	69.6	70.1	64.5	48.1	38.6	20.3	49.4
1866	28.5	33.9	......	......	......	......	......	......	61.6	......	......	......	......
1867	......	......	......	......	......	......	......	......	66.7	55.7	42.5	41.1	......
1868	26.8	34.0	42.0	50.3	56.8	70.9	70.4	66.0	61.3	50.3	34.0	29.8	49.4
1869	22.7	26.9	40.4	43.0	56.6	67.3	73.1	72.6	64.8	48.9	41.6	24.6	48.5
1870	26.4	40.0	37.4	59.9	66.6	70.1	73.7	71.3	65.9	52.1	44.2	27.8	53.0
1871	35.2	35.3	43.6	50.0	61.1	76.6	76.7	74.5	69.2	56.6	41.6	33.0	55.0
1872	26.9	34.2	38.4	44.9	58.2	65.8	66.7	66.7	59.6	48.7	33.3	33.0	48.0
1873	28.7	31.3	43.7	44.0	54.7	65.3	70.0	61.3	60.0	49.7	42.7	29.5	48.7
1874	31.7	27.9	36.0	41.1	56.3	67.6	69.5	67.6	58.3	51.0	38.7	29.7	48.0
1875	28.1	31.2	33.4	45.9	58.1	67.5	64.0	65.3	57.6	52.8	38.8	32.9	48.0
1876	29.2	33.0	36.4	48.7	54.4	63.9	67.3	64.3	59.0	48.3	36.3	29.1	47.5
1877	32.0	33.8	44.3	41.3	52.5	64.4	66.5	65.1	60.0	47.1	34.3	29.3	47.6
1878	22.1	30.4	40.1	46.6	55.2	62.2	70.3	68.2	58.0	50.9	39.2	26.4	47.5
1879	29.2	37.0	47.5	48.0	60.0	65.2	70.0	68.0	62.5	49.8	36.9	28.1	50.2
1880	29.2	24.2	32.4	44.0	56.1	65.4	67.4	64.5	56.8	45.7	29.6	29.4	45.4
1881	23.7	33.6	36.7	51.2	57.2	68.6	68.6	65.5	58.8	49.8	33.6	[35.0]	[48.5]
1882	29.3	32.5	41.4	46.1	53.6	63.6	67.9	64.8	58.5	50.1	39.8	32.2	48.3
1883	26.8	36.1	43.9	44.9	54.6	......	......	......	......	......	......	......	......
1884	......	......	......	......	......	......	......	......	......	......	......	30.9	......
1885	24.0	32.2	40.2	45.8	52.5	61.6	67.9	66.3	59.7	49.6	40.0	32.4	47.7

Mean monthly and annual temperature for thirty stations in New Mexico—Continued.

SANTA FÉ, N. MEX.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	25.2	33.3	35.0	43.7	59.7	63.6	70.6	65.3	57.4	49.6	33.7	34.0	47.6
1887	29.9	33.9	43.0	46.8	55.3	65.6	67.0	65.8	61.1	50.6	41.9	26.8	49.0
1888	30.3	35.5	37.4	49.9	53.4	67.1	70.2	65.8	63.0	51.0	37.6	33.3	49.5
1889	24.6	29.6	41.6	51.6	56.4	64.2	70.5	70.9	61.0	52.1	35.2	39.8	49.8
1890	32.2	36.6	42.0	47.8	59.2	64.7	......	......	......	......	......	......	......
Means	28.3	32.9	40.2	48.2	57.6	67.4	70.4	68.3	62.0	51.0	37.9	30.2	49.6

SELDON, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1865	......	......	......	......	......	......	......	......	......	......	51.4	42.6	......
1866	45.4	......	56.2	......	......	......	......	......	74.8	61.1	49.8	43.0	......
1867	46.3	47.4	53.0	65.4	74.9	83.7	85.0	83.2	77.8	67.9	53.6	54.3	66.0
1868	44.9	50.6	57.0	63.4	70.5	82.8	81.6	80.1	74.4	64.1	49.7	42.9	63.5
1869	41.8	46.2	57.1	61.1	72.4	79.4	81.2	81.3	76.2	61.9	58.7	40.1	63.4
1870	42.1	48.0	54.0	64.3	73.6	80.2	79.5	76.5	70.6	59.8	48.2	35.9	61.1
1871	38.8	44.6	51.0	60.9	72.7	85.4	83.8	82.3	74.2	60.5	46.4	44.1	62.3
1872	37.3	47.6	53.7	62.0	74.4	81.7	80.8	78.7	71.7	59.6	44.2	45.6	61.4
1873	41.1	46.7	58.4	58.7	76.0	78.9	83.0	77.6	75.9	63.4	50.8	42.2	62.7
1874	45.9	44.6	53.3	56.1	72.0	83.8	81.4	84.3	73.7	64.7	52.3	40.8	63.0
1875	45.0	45.6	50.4	60.5	74.2	83.1	80.4	80.2	71.6	64.0	53.3	45.3	62.8
1876	43.5	46.9	52.4	62.4	71.6	81.1	83.2	80.5	72.8	60.9	49.5	40.6	62.1
1877	45.7	47.4	......	......	......	......	......	......	......	......	......	......	......
1886	41.6	47.6	51.4	62.9	77.0	80.5	83.6	79.9	70.4	60.8	45.1	44.6	62.1
1887	43.1	46.8	57.1	62.0	71.3	81.9	81.7	79.6	74.2	61.8	49.8	40.4	62.5
1888	42.1	47.2	53.9	66.2	71.9	83.2	82.8	80.3	72.9	63.3	49.7	44.4	63.2
1889	42.7	*f*48.2	[54.0]	[66.0]	67.9	76.2	83.6	81.9	70.2	62.0	45.8	49.7	[62.4]
1890	44.2	49.2	55.4	63.3	72.6	77.4	83.0	79.6	73.4	......	......	......	......
Means	43.0	47.2	54.5	62.3	71.9	82.0	32.7	80.5	73.4	62.6	49.9	43.5	62.8

STANTON, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1855	......	......	......	......	......	......	......	70.9	67.6	57.5	37.9	[37.0]	......
1856	28.7	36.5	44.1	57.8	61.7	75.1	73.5	70.8	61.2	54.4	40.5	31.1	53.0
1857	34.9	34.4	47.3	47.2	57.4	61.3	69.0	67.8	56.0	56.3	37.2	31.3	50.3
1858	31.2	35.1	40.2	50.4	56.0	62.4	63.8	60.1	56.6	47.8	33.9	31.2	47.4
1859	34.3	43.9	44.7	49.0	64.1	71.2	69.5	70.2	61.0	51.0	44.9	29.7	52.8
1860	36.9	34.9	47.2	52.5	63.5	70.9	71.8	68.5	63.2	54.8	41.6	41.1	53.9
1861	33.2	42.0	47.1	53.4	61.9	67.1	66.7	......	......	......	......	......	......
1866	......	......	......	......	......	......	......	......	60.2	......	......	......	......
1867	41.6	37.6	42.2	52.9	61.8	71.2	[71.0]	69.4	63.2	52.1	43.3	46.6	[54.4]
1868	34.4	40.2	44.8	53.7	59.8	69.2	68.8	65.9	61.5	53.3	42.2	36.0	52.5
1869	33.3	35.5	44.9	49.3	60.8	65.9	71.2	67.9	63.3	50.5	48.0	33.0	52.0
1870	37.6	40.7	42.8	55.4	63.5	66.6	68.6	65.9	61.5	51.8	46.2	37.2	53.2
1871	37.9	41.9	47.0	52.6	62.0	72.3	74.1	68.7	63.2	53.1	45.6	43.0	55.1
1872	35.2	43.4	44.5	54.2	65.0	72.1	69.5	67.8	61.0	49.2	[41.5]	[37.0]	[53.4]
1881	......	......	......	......	......	......	......	61.5	64.6	......	39.8	38.0	......
1882	35.3	......	44.5	......	......	......	......	......	......	......	......	......	......
1885	......	......	......	......	......	......	......	......	......	......	44.4	37.9	......
1886	33.4	38.0	39.2	48.7	......	63.4	67.9	65.2	57.4	49.6	37.6	38.0	......
1887	36.0	39.4	44.0	48.7	55.8	64.5	65.6	63.5	60.1	48.5	41.7	30.0	49.8
1888	36.3	38.0	38 9	52.8	56.6	67.9	68.7	66.1	59.6	51.8	40.0	35.2	51.0
1889	29.6	36.0	41.8	52.8	59.0	61.9	69.3	68.2	59.4	52.8	38.2	43.7	51.3
1890	39.5	42.8	40.3	51.2	60.9	65.8	70.5	67.0	61.0	......	......	......	......
Means	35.0	38.8	43.6	51.9	60.6	67.9	69.4	67.0	61.1	52.2	41.4	36.5	52.1

SUMNER, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864	[39.3]	[40.8]	[47.7]	58.6	69.7	77.7	78.4	79.3	74.9	57.1	38.7	36.6	[58.2]
1865	31.2	34.9	47.8	55.6	73.3	78.7	78.4	77.6	73.7	58.5	50.4	30.5	57.6
1866	43.9	41.3	51.2	57.1	......	......	......	......	68.8	60.5	48.7	39.6	......

Mean monthly and annual temperature for thirty stations in New Mexico—Continued.

SUMNER, FORT, N. MEX.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	44.4	44.3	42.6	57.5	68.6	78.1	80.4	78.5	71.9	60.8	49.5	51.2	60.6
1868	39.0	43.6	48.8	55.5	65.5	79.4	77.9	76.8	70.3	60.8	49.0	40.4	58.9
1869	37.8	39.7	48.0	54.3	65.7	74.6	78.7	......	......	......	......	......	....
Means	39.3	40.8	47.7	56.4	68.6	77.7	78.8	78.0	71.9	59.5	47.3	39.7	58.8

SOCORRO, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1849	......	......	......	......	......	......	......	......	......	......	41.3	36.9	....
1850	39.8	40.1	48.7	55.2	63.4	73.6	79.2	82.5	73.6	60.4	43.9	29.7	57.5
1851	35.4	36.0	[48.0]	59.4	68.0	79.3	80.0	78.5		......	......	......	....
1879	......	......	......	......	......	......	d78.7	74.9	68.6	58.2	46.9	39.8	....
1880	40.5	38.2	48.2	58.2	68.4	76.1	75.8	72.7	68.1	72.6	38.2	34.4	57.6
1881	28.4	43.8	47.2	62.0	67.7	......	......	......	......	......	......	......	....
Means	36.0	39.5	48.0	58.7	66.9	76.3	78.4	77.2	70.1	63.7	42.6	35.2	57.7

THORN, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1854	41.8	40.6	50.7	60.4	67.1	72.4	78.3	73.9	70.0	60.1	44.3	41.0	58.4
1855	39.4	47.6	54.9	65.0	71.8	80.9	81.3	78.3	73.3	62.6	46.6	34.5	61.4
1856	30.4	35.3	48.0	62.7	68.6	82.5	84.7	81.4	68.9	56.6	41.3	33.4	58.1
1857	38.7	44.7	[52.1]	57.7	66.8	77.4	79.9	74.9	65.9	55.8	46.2	34.6	[57.9]
1858	35.4	41.3	49.2	59.6	66.4	75.1	79.4	76.7	68.4	55.7	42.6	39.3	57.4
1859	39.2	......	......	......	......	......	......	......	......	......	......	......	....
Means	37.5	41.9	51.0	61.1	68.1	77.7	80.7	77.0	69.3	58.2	44.8	36.6	58.7

TULEROSA, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	56.8	73.2	76.1	67.7	61.9	50.8	43.2	29.3	....
1874	35.1	30.4	38.7	41.7	57.2	68.8	67.7	66.4	59.4	52.0	41.6	......	....
Means	35.1	30.4	38.7	41.7	57.0	71.0	71.9	67.0	60.6	51.4	42.4	29.3	49.7

UNION, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1851	......	......	......	......	......	......	......	64.5	51.7	46.6	35.9	31.7	....
1852	29.7	35.9	40.9	50.3	57.1	60.8	67.5	64.6	56.4	47.9	34.3	35.1	48.4
1853	33.8	31.1	39.8	52.2	56.7	61.5	64.8	64.3	58.4	46.4	42.6	34.1	49.1
1854	32.3	36.0	40.9	48.0	52.5	60.0	66.5	63.8	59.8	54.6	40.0	34.7	49.1
1855	35.9	35.0	39.8	50.7	57.3	61.6	65.0	64.9	60.1	48.9	33.4	28.4	48.4
1856	24.4	27.8	36.7	49.1	57.3	70.0	73.0	67.4	58.4	46.4	30.1	23.1	47.0
1857	31.0	34.5	42.9	46.2	56.5	67.7	69.3	67.6	58.6	46.0	34.0	30.0	48.7
1858	28.5	34.1	40.1	48.3	57.5	67.1	70.4	66.3	62.3	49.0	35.2	27.0	48.8
1859	27.3	36.2	36.8	43.5	59.9	69.6	70.1	66.4	56.2	48.1	42.2	25.5	48.5
1860	30.0	29.8	41.9	48.4	61.6	70.2	72.7	67.5	61.6	50.6	36.2	31.8	50.2
1861	25.7	36.1	43.4	50.2	61.8	71.2	73.7	67.9	63.8	48.9	45.6	43.4	52.6
1862	36.2	29.8	39.3	47.7	56.5	65.6	77.4	70.8	67.7	58.9	36.6	32.3	51.6
1863	34.1	35.9	45.4	[49.0]	61.2	67.1	69.1	70.6	63.4	47.9	55.2	22.1	[51.8]
1864	26.7	37.5	41.1	......	......	......	......	......	......	......	......	......	....
1865	......	......	......	48.4	68.0	69.5	69.5	70.2	......	......	......	......	....
1866	......	......	......	......	......	......	......	......	64.5	58.7	56.1	44.6	....
1867	44.1	42.7	40.8	56.2	59.6	65.2	66.3	69.5	67.6	59.5	50.7	47.4	55.8
1868	[32.0]	42.1	43.0	48.3	57.6	69.0	71.7	68.2	65.5	57.6	42.9	35.3	[52.8]
1869	33.6	31.3	40.1	42.8	54.8	63.1	70.5	70.7	67.6	55.0	48.4	33.6	51.0
1870	37.9	45.3	40.3	53.4	61.6	65.5	67.9	67.3	62.3	51.8	48.0	32.8	52.8
1871	39.5	37.2	42.4	50.2	58.2	71.5	72.2	68.7	61.8	50.8	40.4	42.6	53.0
1872	33.5	39.0	40.4	50.1	59.8	67.6	67.0	67.3	63.3	51.6	36.8	35.2	51.0
1873	31.1	34.3	45.5	44.5	57.3	66.7	79.9	66.9	63.2	53.2	43.4	32.9	51.6

Mean monthly and annual temperature for thirty stations in New Mexico—Continued.

UNION, FORT, N. MEX.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	36.2	29.9	39.9	43.5	60.0	70.6	73.6	71.1	60.8	52.7	43.3	32.9	51.2
1875	30.2	42.1	48.2	53.5	62.7	73.4	68.2	74.6	64.5	56.5	41.6	38.6	54.5
1876	32.8	3[illegible].6	39.2	52.4	59.8	66.7	70.9	69.0	61.8	50.2	38.1	31.7	50.8
1877	34.3	31.8	46.6	41.4	54.4	67.0	69.1	67.4	61.4	47.7	37.2	32.5	49.2
1878	30.6	35.1	43.2	49.3	57.6	63.6	[70.1]	71.1	60.3	53.3	41.5	27.1	[50.2]
1879	33.1	39.1	49.6	51.2	63.4	69.0	73.7	69.6	64.6	55.2	45.0	37.9	54.3
1880	[31.5]	41.1	39.9	50.1	60.6	69.6	67.8	[64.0]	59.8	47.6	29.7	34.3	[49.7]
1881	26.3	34.7	37.8	52.0	57.1	71.5	70.5	67.4	59.8	50.8	33.9	36.7	49.9
1882	29.5	36.4	41.7	47.8	53.6	65.3	68.6	65.8	61.0	51.7	37.4	33.1	49.3
1883	29.3	32.1	43.5	47.1	56.6	6[illegible].2	68.8	66.3	59.7	48.2	41.2	34.5	49.6
1884	31.6	34.8	39.3	43.6	52.6	61.9	72.4	63.9	60.6	[52.0]	43.5	33.5	[49.1]
1885	29.2	33.5	39.1	46.1	52.4	64.8	70.0	67.4	63.2	52.0	42.9	35.6	49.7
1886	28.9	36.4	36.5	46.2	62.7	65.8	72.7	67.0	58.9	51.3	35.8	38.4	50.0
1887	32.2	34.6	45.5	49.4	58.4	66.0	67.2	67.0	59.8	51.8	44.1	30.7	50.6
1888	32.4	37.4	38.0	50.8	55.5	65.5	72.8	67.2	60.1	46.8	36.6	32.8	49.7
1889	15.5	30.9	[41.0]	45.9	48.2	58.0	63.3	60.6	53.6	45.5	31.4	38.4	[44.4]
1890	33.5	28.1	32.1	42.2	54.4	58.4	66.9	67.2	59.5	......	......	......	......
Means	31.5	35.3	41.2	48.4	57.9	65.5	70.1	67.4	61.2	51.1	40.3	33.8	50.4

WEBSTER, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1852	[31.3]	40.3	44.5	49.0	57.1	69.0	73.5	67.7	61.5	52.1	38.1	40.6	[52.1]
1853	40.6	40.6	47.9	57.2	61.8	71.3	76.8	72.1	64.7	55.6	49.1	45.0	56.9
Means	36.0	40.4	46.2	53.1	59.4	70.2	75.2	69.9	63.1	53.8	43.6	42.8	54.5

WINGATE, FORT, N. MEX.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1862	......	......	......	......	......	......	......	......	......	......	37.9	28.1	......
1863	25.0	32.8	47.1	52.8	62.0	68.8	74.2	70.4	61.6	51.0	33.8	29.3	50.7
1864	29.3	35.6	38.8	51.5	62.1	72.0	76.4	68.9	64.5	[54.6]	[41.0]	38.1	[52.7]
1865	36.8	36.2	42.4	50.1	61.9	69.1	74.0	72.5	65.9	55.5	35.3	23.9	52.0
1866	36.6	44.2	49.3	50.8	......	......	......	......	64.9	57.5	48.4	30.7	......
1867	17.7	38.6	45.6	49.2	60.8	67.8	73.9	73.0	68.5	59.8	50.0	44.8	54.1
1868	31.3	33.9	40.3	49.4	55.1	71.4	71.3	[70.9]	61.1	54.8	37.8	33.5	[50.9]
1869	32.1	31.0	45.0	47.2	60.5	69.5	74.5	70.7	63.2	52.9	46.0	30.2	52.2
1870	32.4	37.3	39.4	52.6	61.6	67.5	72.3	69.8	63.9	51.0	39.4	26.4	51.1
1871	31.1	33.2	41.1	50.8	58.2	73.0	71.8	69.2	64.0	47.2	36.2	34.0	50.8
1872	26.5	35.9	42.5	44.8	57.7	67.1	72.3	69.6	63.2	51.2	36.3	37.4	50.4
1873	34.0	32.6	48.0	49.2	60.2	71.6	77.8	70.8	66.6	53.1	44.0	28.9	53.1
1874	32.1	29.7	37.6	39.2	62.6	74.3	75.4	72.3	66.2	55.1	41.9	33.4	51.6
1875	33.8	33.1	39.3	51.3	64.9	73.5	70.8	72.0	63.7	57.8	43.0	35.2	53.2
1876	32.4	37.1	39.5	53.7	60.8	73.0	74.5	69.2	62.2	53.6	41.7	33.6	52.6
1877	36.8	37.7	48.6	46.8	60.1	72.0	77.5	76.7	65.7	51.4	37.3	31.2	53.5
1878	23.8	32.1	42.6	49.7	61.6	70.0	76.2	73.1	63.0	52.6	41.6	29.8	51.3
1879	30.2	40.0	51.1	52.6	66.1	71.9	75.1	73.2	67.3	52.4	36.9	30.4	53.9
1880	30.5	26.0	36.9	47.0	60.4	71.4	70.7	69.0	62.0	47.4	31.4	31.7	48.7
1881	27.7	34.8	39.8	57.3	64.1	75.2	75.0	70.8	63.1	53.4	34.3	34.5	52.5
1882	28.5	29.8	39.9	48.3	57.5	66.7	72.6	69.8	60.1	49.4	37.4	33.0	49.4
1883	25.8	33.6	44.7	48.0	57.9	72.1	70.4	68.9	63.3	49.6	40.7	35.5	50.9
1884	31.7	33.4	39.1	45.9	57.7	67.4	75.0	67.5	62.2	53.4	42.0	36.0	50.9
1885	28.2	[34.0]	[42.0]	[45.5]	57.2	64.5	70.4	67.8	62.0	51.5	40.5	34.6	[49.8]
1886	27.2	35.4	34.3	45.6	62.8	67.9	73.0	67.0	59.5	49.1	33.4	37.1	49.4
1887	31.4	32.7	44.4	47.4	57.1	68.2	69.0	65.8	59.8	48.7	40.3	23.7	49.0
1888	26.2	33.7	36.8	49.3	54.3	67.0	68.1	66.6	61.8	50.6	38.1	31.9	48.7
1889	24.2	28.4	40.4	51.6	56.4	61.8	[73.0]	68.7	[62.4]	[53.0]	37.7	41.0	[50.1]
1890	32.0	37.2	42.4	49.5	59.8	65.6	73.3	70.0	63.1	......	......	......	......
Means	29.8	34.4	42.1	49.2	60.1	69.8	73.3	70.2	63.4	52.5	39.4	32.8	51.4

Appendix No. 32.

LIST OF STATIONS IN CALIFORNIA FOR WHICH METEOROLOGICAL DATA ARE GIVEN.

The names of the stations have been arranged alphabetically under their several counties, commencing at the northwest portion of the State.

Latitudes and longitudes, as given, are not in all cases astronomically correct. Those which have not been accurately determined by reliable surveys have been corrected by reference to the latest standard maps.

Elevations, likewise, are not always given with accuracy. All those in which any reason for doubt existed have been referred to the nearest datum point upon some trustworthy system of contours or determined elevation.

Broken records are indicated by an asterisk (*) in the column "Length of record." The missing period may be ascertained by an inspection of the printed records as they appear in Appendices Nos. 34 and 36.

References: S. S., second-order stations of the Signal Service; V. O., voluntary stations; M. D., stations of the Medical Department of the Army reporting through the Surgeon-General; R. R., stations of the Southern Pacific Railway Company.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record. Length.		Record. From—	Record. To (inclusive)—	T. or R. missing.	Authority.
	Del Norte.	° ′	° ′	*Feet.*	*Yrs.*	*Mo.*				
M. D.	Camp Lincoln	41 08	124 12	......	2	8*	Sept., 1866	May, 1869	......	U. S. post hospital.
V. O.	Crescent City	41 45	124 12	50	5	0	July, 1885	June, 1890	......	D. S. Sartwell.
M. D.	Fort Ter Wah	41 30	124 10	150	2	3*	Apr., 1859	Sept., 1861	......	U. S. post hospital.
	Siskiyou.									
V. O.	Yreka	41 45	122 32	2,635	18	7	Sept., 1871	Mar., 1890	......	Dr. Louis Autenreith.
V. O.	Scott Valley	41 45	123 02	2,570	30	7	Aug., 1859	Feb., 1890	......	Isaac Titcomb.
M. D.	Fort Jones	41 36	122 52	2,570	5	0*	Jan., 1853	June, 1858	......	U. S. post hospital.
V. O.	Walla Walla Creek	41 42	122 55	3,000	3	4*	Mar., 1886	June, 1890	......	I. Titcomb (near Fort Jones).
R. R.	Berryvale	41 19	122 13	3,555	1	4*	Oct., 1881	Apr., 1883	......	Pacific Rwy. system.
R. R.	Cole's	42 00	122 39	2,905	1	6	Jan., 1888	June, 1889	......	Do.
R. R.	Dunsmuir	41 12	122 16	2,285	1	11*	July, 1888	June, 1890	......	Do.
R. R.	Edgwood	41 28	122 23	2,955	1	7*	Sept., 1888	....do....	......	Do.
R. R.	Hornbrook	41 50	122 50	2,154	2	8*	Aug., 1887	....do....	......	Do.
R. R.	Montague	41 44	122 31	2,542	2	1*	Feb., 1888	....do....	......	Do.
R. R.	Sisson (same as Berryvale).	......	......	......	2	0*	Mar., 1888	....do....	......	Do.
	Modoc.									
S. S.	Fort Bidwell	41 53	120 11	4,640	24	2*	Nov., 1863	June, 1890	......	U. S. post hospital and Signal Service.
V. O.	Little Hot Springs	41 30	120 06	4,700?	1	4	Nov., 1885	Feb., 1887	......	
	Humboldt.									
M. D.	Fort Gaston	41 05	123 15	397	28	1*	Sept., 1861	June, 1890	......	U. S. post hospital.
V. O.	Christmas Prairie	40 55	124 00	3,000	2	10	June, 1884	Mar., 1887	......	J. H. Blake.
V. O.	Arcata	40 53	124 05	30	3	8*	Feb., 1886	May, 1890	......	H. L. Fry.
M. D.	Fort Humboldt	40 46	124 10	50	11	11*	Jan., 1854	Dec., 1869	......	U. S. post hospital.
V. O.	Humboldt Light	40 46	124 13	8	12	7*	Sept., 1875	June, 1890	......	U. S. Light-House Bd.
V. O.	Hydesville	40 32	123 58	400	6	5*	Nov., 1883	....do....	......	E. T. Foss.
S. S.	Cape Mendocino	40 26	124 24	637	4	4*	Aug., 1882	Dec., 1886	......	Signal Service.
V. O.	Orleans	41 25	123 30	420	2	7*	Nov., 1884	June, 1887	......	Henry P. Scott.
S. S.	Eureka	40 48	124 11	34	3	6	Jan., 1887	June, 1890	......	Signal Service.
V. O.	Ferndale	40 35	124 15	42	0	4	Dec., 1889	Mar., 1890	......	J. H. Frost.
V. O.	Upper Mattole	40 18	124 07	44	3	6*	Nov., 1886	June, 1890	......	W. H. Roscoe.

List of stations in California for which meteorological data are given—Continued.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record.				T. or R. missing.	Authority.
					Length.		From—	To (inclusive)—		
	Trinity.	° ′	° ′	*Feet.*	*Yrs.*	*Mo.*				
V. O	Weaverville	40 46	123 25	2,162	12	8	Sept., 1869	Mar., 1886	......	George E. Noonan.
	Shasta.									
M. D	Fort Crook	40 10	121 20	3,390	10	3*	Jan., 1858	Apr., 1869	......	U. S. post hospital.
R. R	Delta	41 00	122 23	1,138	7	10*	Sept., 1882	June, 1890	......	Pacific Rwy. system.
V. O	Anderson	40 27	122 17	432	4	2	Feb., 1886	Mar., 1890	......	Albert Fouch.
V. O	Fort Reading	40 28	122 13	596	3	11*	Apr., 1852	Mar., 1856	......	U. S. post hospital.
R. R	Redding	40 36	122 27	556	15	7*	Sept., 1874	June, 1890	......	Pacific Rwy. system.
R. R	Sims	41 05	122 21	1,387	2	4	Mar., 1888	....do	......	Do.
V. O	Reed's Camp	41 03	122 20	....	5	0	Jan., 1880	Dec., 1884	......	L. Autenreith.
	Lassen.									
V. O	Susanville	40 23	120 35	4,195	3	0*	Oct., 1885	June, 1890	......	T. B. Sanders.
	Tehama.									
S. S	Red Bluff	40 10	122 15	342	18	6	Jan., 1872	June, 1890	......	Pacific Rwy. system and Signal Service.
R. R	Tehama	40 02	122 07	220	18	7*	Sept., 1870	....do	......	Pacific Rwy. system.
R. R	Corning	39 58	122 12	....	12	4	Feb., 1876	....do	......	Do.
R. R	Vina	39 56	122 02	213	1	8*	Sept., 1888	....do	......	Do.
	Plumas.									
V. O	Indian Valley	40 07	120 50	3,280	2	8*	Nov., 1870	June, 1873	......	Smithsonian Collection.
V. O	Meadow Valley	39 56	121 02	4,000	5	1*	Jan., 1860	Nov., 1867	......	J. H. Whitlock, Mrs. M. D. Smith.
V. O	Mumford Hill	39 53	121 05	4,900	5	8	Jan., 1877	Aug., 1882	......	J. A. Eadman.
	Mendocino.									
M. D	Camp Wright	39 45	123 00	1,800	10	6*	July, 1861	May, 1875	......	U. S. post hospital.
V. O	Laytonville	39 42	123 30	....	2	5	Nov., 1883	Mar., 1886	......	Remington & Veirs.
V. O	Westport	39 40	123 42	....	3	1	Oct., 1885	Oct., 1888	......	E. S. S. Root, M. D.
V. O	Cahto	39 15	123 17	2,000	1	3	Dec., 1869	Feb., 1871	......	Dr. Thornton and daughter.
M. D	Fort Bragg	39 51	123 50	50	4	7*	Dec., 1860	Apr., 1872	......	U. S. post hospital.
V. O	Point Arena	38 57	123 44	156	14	4	Sept., 1875	June, 1890	......	U. S. Light-House Bd.
V. O	Potter Valley	39 15	123 01	....	1	3*	Jan., 1886	Nov., 1887	......	J. D. Phillips.
V. O	Ukiah	39 08	123 18	....	9	6	Jan., 1877	June, 1886	......	Geo. McCowan, Wm. Doolan.
	Lake.									
V. O	Kono Tayee	39 05	122 43	1,350	10	9*	Sept., 1873	Aug., 1884	......	R. L. Floyd.
V. O	Middletown	38 46	122 37	....	6	8*	Nov., 1879	June, 1886	......	Leon Lobe.
	Colusa.									
R. R	Orland	39 45	122 12	254	11	11	July, 1878	June, 1890	......	Pacific Rwy. system.
R. R	Willows	39 31	122 12	132	11	8*	Sept., 1878	....do	......	Do.
V. O	Princeton	39 23	122 02	57	12	4*	Sept., 1873	Apr., 1887	......	D. Bentley.
R. R	Fruto	39 21	122 27	295	1	9	Sept., 1888	May., 1890	......	Pacific Rwy. system.
V. O	Colusa Ranche	39 13	122 01	45	10	11*	Feb., 1871	Feb., 1890	......	Pacific Rwy. system, J. D. McNary.
V. O	Cantelope Valley	....	....	....	8	5	Jan., 1878	May, 1886	......	Peter Peterson.
V. O	Font's Springs	39 20	122 40	....	2	9	Oct., 1885	June, 1888	......	John F. Fouts.
R. R	Williams	39 10	122 10	89	13	8	Sept., 1876	June, 1890	......	Pacific Rwy. system.
V. O	College City	38 52	121 47	110	2	4*	July, 1883	Mar., 1887	......	Dr. A. Fouch, J. C. Keith.
V. O	Little Stony	39 25	122 30	....	1	5*	Dec., 1884	Apr., 1886	......	C. M. Polley.
	Butte.									
V. O	Chico	39 43	121 48	193	19	5*	Nov., 1870	June, 1890	......	Pacific Rwy. system.
V. O	Oroville	39 30	121 33	188	8	5*	July, 1880	....do	......	H. Arents, Pacific Rwy. system.

List of stations in California for which meteorological data are given—Continued.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record.			T. or R. missing.	Authority.
					Length.	From—	To (inclusive)—		
	Butte—Continued.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
V. O ..	Union Ranche	39 25	121 30	....	3 7*	Mar., 1858	Jan., 1863	......	J. Slaven.
V. O ..	Cherokee	39 38	121 34	....	12 4*	Sept., 1871	Aug., 1884	......	L. Glass.
V. O ..	Cherokee Reservoir	39 38	121 33	....	6 0	Sept., 1873	Aug., 1879	......	Do.
	Yuba.								
V. O ..	Marysville..........	39 09	121 36	67	19 4*	Feb., 1871	June, 1890	......	Pacific Rwy. system.
V. O ..	Wheatland	39 00	121 25	84	3 7*	Dec., 1886	....do	......	William Lumbard.
V. O ..	Camp Far West....	39 07	121 18	175	2 3*	Jan., 1850	Mar., 1852	......	Dr. R. N. Abbott, U. S. A.
V. O ..	Smartville..........	39 12	121 20	800	9 9*	Sept., 1870	Aug., 1880	......	J. O'Brien.
	Nevada.								
V. O ..	Bowman's Dam....	39 27	120 39	5,400	16 4*	Sept., 1871	Dec., 1887	......	H. C. Perkins, W. H. Radford.
R. R ..	Boca	39 24	120 06	5,531	19 10*	Feb., 1870	June, 1890	......	Pacific Rwy. system.
R. R ..	Truckee	39 19	120 01	5,819	20 1*	....do	....do	......	Do.
V. O ..	Grass Valley.......	39 13	121 04	2,090	17 10	Sept., 1872	....do	......	Mr. Loutzenheiser, B. F. Berriman.
V. O ..	American Hill	39 32	120 48	....	0 7	June, 1889	Dec., 1889	......	M. C. Dwight.
V. O ..	Malakoff Mine	39 22	120 50	3,200	1 8	July, 1886	Feb., 1888	......	R. D. Wheeler.
V. O ..	Nevada City	39 16	121 02	2,500	22 10	Sept., 1863	June, 1886	......	J. S. Brown.
V. O ..	North Bloomfield...	39 22	120 54	3,160	16 0	July, 1870	....do	......	H. C. Perkins, W. H. Radford.
	Sutter.								
V. O ..	West Butte	39 18	121 55	90	10 4	Nov., 1879	Feb., 1890	.....	A. S. Noyes.
V. O ..	Nicolaus...........	39 10	121 32	42	11 8*	July, 1877	Feb., 1889	......	Alvah Pendleton.
	Placer.								
R. R ..	Summit	39 19	120 27	7,017	20 6*	Feb., 1870	June, 1890	......	Pacific Rwy. system.
R. R ..	Emigrant Gap	39 17	120 40	5,230	19 10*	Mar., 1870	....do	......	Do.
R. R ..	Cisco	39 19	120 33	5,939	20 0*	Feb., 1870	....do	.....	Do.
R. R ..	Alta................	39 13	120 49	3,612	14 9*	....do	June, 1885	......	Do.
R. R ..	Colfax..............	39 06	120 57	2,421	20 4*	....do	June, 1890	......	Do.
R. R ..	Auburn.............	38 54	121 03	1,360	20 11*	Aug., 1859	....do	......	Smithsonian collection and Pacific Rwy. system.
R. R ..	Rocklin	38 47	121 15	249	20 5*	Feb., 1870	....do	......	Pacific Rwy. system.
V. O ..	Strawberry Flat ...	39 07	120 49	2,825	11 6	Jan., 1879	....do	......	C. F. Macy.
R. R ..	Towles	39 18	120 38	3,704	5 0	July, 1885	....do	......	Pacific Rwy. system.
	Yolo.								
R. R ..	Dunnigan	38 52	121 58	65	13 10	Sept., 1876	June, 1890	......	Pacific Rwy. system.
R. R ..	Knight's Landing..	38 48	121 43	35	12 10*	Sept., 1877	....do	......	Do.
R. R ..	Woodland	38 42	121 47	45	17 10	Sept., 1872	....do	......	J. B. Elstow, Pacific Rwy. system.
R. R ..	Davisville	38 33	121 43	51	18 10*	Sept., 1871	....do	......	Pacific Rwy. system.
R. R ..	Rumsey	38 51	122 14	....	1 11*	Aug., 1888	....do	......	Do.
	El Dorado.								
V. O ..	Georgetown	38 55	120 51	2,433	17 8*	Nov., 1872	June, 1890	......	C. M. Fitzgerald.
V. O ..	Placerville	38 44	120 48	2,109	14 3*	Jan., 1874	....do	......	Samuel Hale, Richard Rowland, and Pacific Rwy. system.
R. R ..	Shingle Springs....	38 39	120 55	1,427	21 11*	Sept., 1849	....do	......	M. Phelps, Pacific Rwy. system.
R. R ..	El Dorado..........	38 41	120 51	1,609	1 7	Dec., 1888	....do	......	Pacific Rwy. system.
	Sonoma.								
V. O ..	Healdsburg.........	38 36	122 51	100	2 7*	Sept., 1871	Nov., 1878	......	Maj. Howard.

***List of stations in California for which meteorological data are given*—Continued.**

Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record: Length.	Record: From—	Record: To (inclusive)—	T. or R missing.	Authority.
	Sonoma—Continued.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
R. R ..	Santa Rosa	38 27	122 43	155	2 8*	Nov., 1873	June, 1890	......	Prof. W. B. Hardy, L. M. King, Pacific Rwy. system.
V. O ..	Sonoma...........	38 21	122 30	....	5 9*	Nov., 1850	....do	......	U. S. post hospital and Robert Hall.
R. R ..	Petaluma..........	38 14	122 39	10	18 0*	Nov., 1871	....do	......	Pacific Rwy. system.
V. O ..	Cloverdale	38 48	123 00	317	1 7*	Dec., 1876	Feb., 1888	......	R. M. Hoskinson, Frank M. Lamb.
R. R ..	El Verano	38 17	122 27	104	1 11	Aug., 1888	June, 1890	......	Pacific Rwy. system.
R. R ..	Glen Ellen.......	38 23	122 30	279	1 6*	Jan., 1889	....do	......	Do.
V. O ..	Fort Ross.........	38 35	123 05	....	19 7*	Jan., 1837	Jan., 1890	......	Smithsonian Collection and Oscar Call.
	Napa.								
R. R ..	Calistoga..........	38 38	122 34	331	17 11*	Jan., 1872	June, 1890	......	Pacific Rwy. system.
R. R ..	Napa..............	38 18	122 17	20	13 7*	Sept., 1876	....do	......	W. H. Martin, Pacific Rwy. system.
V. O ..	Napa Insane Asylum.	....	....	....	1 0	July, 1878	June, 1879	......	State Board of Health.
V. O ..	Knoxville	38 49	122 21	....	1 0	Sept., 1883	Aug., 1884	......	Pacific Rwy. system.
	Sacramento.								
V. O ..	Folsom City	38 40	121 10	182	19 6*	Mar., 1861	June, 1890	......	Smithsonian collection and J. H. Sturges.
S. S ...	Sacramento........	38 35	121 30	64	41 0*	July, 1849	....do	......	Signal Service and Smithsonian collection.
R. R ..	Brighton	38 33	121 24	53	13 0	July, 1877	....do	......	Pacific Rwy. system.
R. R ..	Galt..............	38 16	121 17	49	12 10*	....do	....do	......	Do.
	Amador.								
R. R ..	Ione..............	38 21	120 56	287	13 0*	....do	June, 1890	......	Pacific Rwy. system.
V. O ..	Sutter Creek	38 20	120 50	....	15 4	Jan., 1887	Jan., 1890	......	E. S. Voorhees.
V. O ..	Jackson	38 21	120 45	934	7 0	Sept., 1877	Aug., 1884	......	R. Webb.
	Solano.								
V. O ..	Bird's Landing.....	....	....	....	....	July, 1883	June, 1886	......	Lieut. W. A. Glassford.
R. R ..	Winters	38 31	121 59	....	2 10*	July, 1885	June, 1890	......	G. W. Yount, E. S. Watchhorst, Pacific Rwy. system.
R. R ..	Elmira	38 27	121 57	75	4 7	Dec., 1885	....do	......	Pacific Rwy. system.
V. O ..	Vacaville..........	38 21	121 58	175	11 10*	Jan., 1869	....do	......	Prof. J. C. Simmons, A. V. Stevenson, and G. O. Coburn.
V. O ..	Denverton.........	38 14	121 54	10	15 3	July, 1873	*Sept., 1888	......	S. K. Nurse.
R. R ..	Fairfield or Suisun	38 14	122 02	11	18 7*	Sept., 1871	June, 1890	......	Pacific Rwy. system.
V. O ..	Rio Vista..........	38 11	121 40	....	1 4	Dec., 1878	June, 1886	......	J. C. Stanton.
R. R ..	South Vallejo......	38 06	122 15	23	17 11*	May, 1872	June, 1890	......	Pacific Rwy. system.
M. D..	Benicia Barracks ..	38 02	122 08	64	35 6*	Nov., 1849	....do	......	Smithsonian collection and U. S. post hospital.
V. O ..	Mare Island	38 06	122 15	29	4 7*	Jan., 1868	June, 1878	......	Smithsonian collection.
V. O ..	Green Valley	38 13	122 09	....	1 1	Dec., 1886	Dec., 1887	......	George Cook.
	Calaveras.								
M. D..	Fort Union	38 35	121 28	54	1 7*	Nov., 1863	Aug., 1865	......	U. S. post hospital.
R. R ..	Valley Springs.....	38 13	120 46	....	2 10*	Sept., 1887	June, 1890	......	H. W. Turner and Pacific Rwy. system.
V. O ..	West Point	38 25	120 26	....	0 11	Feb., 1887	Dec., 1887	......	T. A. Wilson.
	Marin.								
S. S ...	Point Reyes Light .	37 59	123 01	296	13 4	Sept., 1875	June, 1890	......	Signal Service and Light-House Board.

List of stations in California for which meteorological data are given—Continued.

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	Marin—Continued.	° ′	° ′	*Feet.*	*Yrs.*	*Mo.*				
V. O..	San Rafael (near)..	37 58	122 32	25	12	3*	Sept., 1874	Nov., 1886	......	William McPherson, U. M. Gordon.
V. O..	Ross Valley........	37 55	122 40	....	2	10	July, 1883	Apr., 1886	......	William McPherson.
V. O..	Sausalito..........	37 50	122 30	....	6	6*	July, 1881	Dec., 1888	......	George Tasheira.
M. D..	Angel Island.......	37 48	122 28	50	21	6*	Dec., 1867	June, 1890	......	U. S. post hospital.
V. O..	Point Bonita.......	37 49	122 32	124	14	4	Sept., 1875	....do.....	......	U. S. Light-House Board.
	San Francisco.									
M. D..	Alcatraz Island....	37 49	122 27	143	27	9*	Feb., 1860	June, 1890	......	U. S. post hospital.
V. O..	Fort Point.........	37 48	122 28	186	15	0	Jan., 1860	Dec., 1874	......	U. S. post hospital and U. S. Coast Survey.
S. S...	San Francisco......	37 48	122 26	60	41	0	July, 1849	June, 1890	......	Signal Service, Thos. Tennant, Dr. H. Gibbons, and Dr. W. O. Ayres.
M. D..	Fort Mason.........	37 48	122 26	80	7	7*	Dec., 1882	....do.....	......	U. S. post hospital.
M. D..	Yerba Buena........	37 48	122 24	345	17	0*	Feb., 1869	....do.....	......	Do.
M. D..	Presidio San F.....	37 48	122 22	150	38	4*	Oct., 1847	....do.....	......	Do.
M. D..	Point San José.....	37 41	122 25	90	12	4*	Oct., 1865	Nov., 1882	......	Do.
V. O..	Farallon Islands...	37 44	123 00	331	9	6	July, 1880	June, 1890	......	U. S. Light-House Board.
	Contra Costa.									
R. R..	Antioch............	38 00	121 48	25	11	6*	Nov., 1878	June, 1890	......	Pacific Rwy. system.
R. R..	Martinez...........	38 02	122 09	9	12	5*	Jan., 1878	....do.....	......	Do.
R. R..	Brentwood..........	37 56	121 42	80	10	5*	Oct., 1879	....do.....	......	Do.
R. R..	Byron..............	37 52	121 38	33	10	7*	Nov., 1879	....do.....	......	Do.
V. O..	Walnut Creek.......	37 44	122 02	....	2	10*	Jan., 1887	....do.....	......	D. J. Holloway, A. L. Bancroft.
V. O..	East Brother Island.	37 57	122 26	63	14	4	Sept., 1875	....do.....	......	U. S. Light-House Board.
V. O..	Mount Diablo.......	37 53	121 54	3,848	2	4*	Jan., 1875	July, 1877	......	Joseph S. Hall.
	San Joaquin.									
R. R..	Farmington.........	37 56	121 01	111	13	3*	Mar., 1877	June, 1890	......	Pacific Rwy. system.
R. R..	Stockton...........	37 52	121 18	20	23	11*	Jan., 1854	....do.....	......	Dr. R. R. Reed, W. M. Trivett, M. Walthal, Pacific Rwy. system.
R. R..	Lathrop............	37 49	121 16	25	13	0*	July, 1877	....do.....	......	Pacific Rwy. system.
R. R..	Ellis..............	37 44	121 27	76	8	6	Jan., 1871	June, 1879	......	Do.
R. R..	Tracy..............	37 45	121 26	54	11	8	Nov., 1878	June, 1890	......	Do.
R. R..	Linden.............	38 5	121 06	95	1	7	Dec., 1886	June, 1888	......	I. Green.
V. O..	San Joaquin........	37 40	121 16	....	0	11*	Jan., 1864	Dec., 1864	......	Dr. W. W. Hays.
V. O..	Collegeville.......	38 00	121 06	....	1	6*	Oct., 1886	Apr., 1888	......	Andrew Lawson.
V. O..	Lodi (3 miles south)	38 7	121 14	....	8	1	Jan., 1882	Jan., 1890	......	Ezra Fisk, J. D. Huffman.
	Mono.									
V. O..	Tioga Mining Dist.	37 55	119 15	9,300	1	6	Jan., 1883	June, 1884	......	Thomas Bennett, jr.
	Alameda.									
V. O..	Berkeley...........	37 52	122 16	320	3	8	Nov., 1886	June, 1890	......	Prof. Frank Soulé.
V. O..	Oakland............	37 48	122 17	24	16	9	Oct., 1873	....do.....	......	J. B. McChesney, J. Hutchinson, Dr. J. B. Trembly, Chabot Observatory.
R. R...	Livermore..........	37 40	121 45	485	20	4*	Mar., 1870	....do.....	......	Pacific Rwy. system.
R. R..	Pleasanton.........	37 38	121 52	360	12	7*	Aug., 1877	....do.....	......	Do.
R. R..	Niles..............	37 35	121 58	87	19	5*	Dec., 1870	....do.....	......	Do.
R. R..	Midway.............	37 43	121 34	356	1	7	July, 1877	Jan., 1879	......	Do.
V. O..	Centreville........	37 35	122 02	50	4	6*	Jan., 1886	June, 1890	......	William Barry.
R. R..	Newark.............	37 32	122 02	25	1	11*	Aug., 1888	....do.....	......	Pacific Rwy. system.
R. R..	Haywards...........	37 41	122 06	75	0	7	Dec., 1889	....do.....	......	Do.
V. O..	Calaveras Valley...	37 28	121 48	626	4	0*	Sept., 1878	Aug., 1884	......	Spring Valley Water Company.

List of stations in California for which meteorological data are given—Continued.

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					Length.		From—	To (inclusive)—		
	Stanislaus.	° ′	° ′	*Feet.*	*Yrs.*	*Mo.*				
V. O ..	La Grange	37 42	120 28	250	20	11*	July, 1867	June, 1890	......	Joseph Dominici.
R. R ..	Modesto	37 38	120 58	90	19	6*	Jan., 1871	....do	......	Pacific Rwy. system.
R. R ..	Turlock	37 30	120 52	106	11	5	Feb., 1879	....do	......	Do.
R. R ..	Newman	37 19	121 01	92	1	9*	Sept., 1888	....do	......	Do.
R. R ..	Westley	37 34	121 13	90	1	11*	Aug., 1888	....do	......	Do.
V. O ..	Langworth	37 45	120 54	153	4	7	Sept., 1881	Apr. 1887	......	A. Gardner.
V. O ..	Grayson	37 34	121 11	55	14	0	Sept., 1870	Aug., 1884	......	J. R. McDonald.
V. O ..	Hill's Ferry	37 20	120 59	72	4	0	Sept., 1880	....do	......	Dr. Charles P. Miller.
	San Mateo.									
R. R ..	Woodside	37 26	122 15	....	2	6	Jan., 1884	June, 1886	......	Pacific Rwy. system.
R. R ..	San Mateo	37 34	122 19	30	16	10*	Sept., 1873	June, 1890	......	Do.
R. R ..	Menlo Park	37 27	122 11	72	12	4	Mar., 1878	....do	......	Do.
V. O ..	Belmont	37 32	122 16	33	0	10	Sept., 1889	....do	......	Do.
V. O ..	Crystal Springs	37 33	122 21	220	9	0	Sept., 1875	Aug., 1884	......	Spring Valley Water Company.
V. O ..	Año Nuevo Island	37 07	122 20	....	14	4	....do	June, 1890	......	U. S. Light-House Bd.
V. O ..	Point Montara	37 32	122 31	....	14	4	....do	....do	......	Do.
V. O ..	Pigeon Point	37 11	122 23	150	12	8	....do	....do	......	Do.
V. O ..	Pilarcitos	37 33	122 25	620	20	0	Sept., 1864	Aug., 1884	......	Spring Valley Water Company.
V. O ..	San Andreas Reservoir.	37 35	122 25	377	16	0	Sept., 1868	....do	......	Do.
	Santa Clara.									
V. O ..	Mount Hamilton	37 20	121 38	4,440	9	7*	Sept., 1880	June, 1890	......	Lick Observatory.
V. O ..	Murphy	38 08	120 28	....	1	0*	Jan., 1868	Mar., 1869	......	Smithsonian collection.
V. O ..	Wright's	37 39	121 18	....	1	5	Nov., 1885	Mar., 1887	......	H. C. Morrill.
R. R ..	San José	37 21	121 52	94	16	6*	Dec., 1873	June, 1890	......	Pacific Rwy. system.
V. O ..	Santa Clara	37 20	121 58	80	4	3*	Sept., 1859	....do	......	Prof. O. S. Frambes, F. K. Saxe, M. D., A. Block.
R. R ..	Los Gatos	37 14	122 02	600	5	5*	Feb., 1885	....do	......	F. H. McCullough, Douglas Van Denburgh, Pacific Rwy. system.
R. R ..	Tennant	37 07	121 38	335	7	9*	Feb., 1878	Oct., 1885	......	Pacific Rwy. system.
R. R ..	Gilroy	36 59	121 33	261	16	10*	Sept., 1873	June, 1890	......	Do.
R. R ..	Almaden	37 10	121 51	....	3	8*	Nov., 1886	....do	......	Do.
V. O ..	Evergreen	37 19	121 41	....	3	9	Oct., 1886	....do	......	S. Holland.
	Merced.									
R. R ..	Livingston	37 23	120 42	....	4	8*	Nov., 1885	June, 1890	......	Pacific Rwy. system.
R. R ..	Merced	37 19	120 30	171	18	5*	Sept., 1871	....do	......	Do.
R. R ..	Athlone	37 15	120 25	....	4	7*	Dec., 1885	....do	......	Do.
V. O ..	Los Baños	37 04	120 46	200	3	10*	July, 1886	....do	......	Adolph Widman.
V. O ..	Central Point	37 04	120 53	117	6	10	Sept., 1879	June, 1886	......	J. Q. Drummond.
	Santa Cruz.									
R. R ..	Aptos	36 58	121 54	....	6	0*	July, 1884	June, 1890	......	Pacific Rwy. system.
R. R ..	Santa Cruz	36 58	122 02	25	16	5*	Jan., 1873	....do	......	A. L. Taylor, J. H. Hoadley, Pacific Rwy. system.
V. O ..	Watsonville	36 56	121 43	45	2	10*	Jan., 1869	Feb., 1872	......	Dr. A. J. Compton.
R. R ..	Soquel	36 55	121 58	....	6	9*	Aug., 1883	June, 1890	......	Pacific Rwy. system.
R. R ..	Boulder Creek	37 09	122 06	470	1	10	Sept., 1888	....do	......	Do.
R. R ..	Felton	37 06	122 04	275	1	11*	Aug., 1888	....do	......	Do.
R. R ..	Laurel	37 08	121 58	910	1	11*	....do	....do	......	Do.
	Fresno.									
M. D ..	Fort Miller	37 00	119 40	402	7	8*	July, 1851	Aug., 1864	......	U. S. post hospital.
R. R ..	Borden	36 58	120 04	172	14	11*	May, 1875	June, 1890	......	Pacific Rwy. system.
S. S...	Fresno	36 43	119 49	328	13	6*	Jan., 1877	....do	......	Signal Service and Pacific Rwy. system.

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	Fresno—Continued.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
R. R	Kingsburgh	36 31	119 33	301	11 4*	Feb., 1879	June, 1890	......	Pacific Rwy. system and state engineering department.
R. R	Selma	36 41	119 45	295	4 6*	Dec., 1885	....do	......	Pacific Rwy. system.
R. R	Alcalde	36 06	120 28	850	1 11*	July, 1888	....do	......	Do.
R. R	Berenda	37 02	120 10	256	1 4*	Mar. 1889	....do	......	Do.
R. R	Sanger Junction	36 39	119 33	......	1 11	Aug., 1888	....do	......	Do.
V. O	New Idria	36 25	120 40	......	4 2*	Sept., 1881	June, 1886	......	J. W. Maxwell.
V. O	Hamptonville	36 59	119 43	331	1 8	Jan., 1879	Aug., 1880	......	W. C. Hampton.
V. O	Firebaugh	36 52	120 28	150	13 7	Dec., 1872	June, 18[illegible]6	......	William Bennett.
V. O	King's River (Centerville).	36 44	119 30	400	5 9	Dec., 1878	Aug., 1884	......	Max. Frankenau.
V. O	Big Dry Creek	36 53	119 34	435	7 4	Sept., 1871	Dec., 1878	......	M. L. Garrison.
V. O	Buchanan	37 12	120 00	450	4 0	Sept., 1878	Aug., 1882	......	Orrin Sharp and Phil. Woolcock.
	San Benito.								
R. R	Hollister	36 51	121 25	284	16 10*	Sept., 1873	June, 1890	......	Pacific Rwy. system.
V. O	San Benito	36 15	121 06	140	1 10*	May, 1861	July, 1863	......	Dr. C. A. Canfield.
	Monterey.								
V. O	Gonzales	37 57	121 14	......	9 4	Jan., 1877	Apr., 1886	......	Lieut. W. A. Glassford.
R. R	Pajaro	36 53	121 44	31	16 10*	Sept., 1873	June, 1890	......	Pacific Rwy. system.
R. R	Salinas	36 41	121 36	45	18 1*	June, 1872	....do	......	Dr. E. K. Abbott and Pacific Rwy. system.
R. R	Monterey	36 35	121 51	42	27 0*	May, 1847	....do	......	U. S. post hospital, Dr. C. A. Canfield, Signal Service, and Pacific Rwy. system.
R. R	Monterey (Hotel Del Monte).	36 35	121 51	......	1 5	Feb., 1889	Jan., 1890	......	Pacific Rwy. system.
R. R	Chualar	36 36	121 30	111	5 4*	July, 1881	May, 1887	......	Do.
R. R	Soledad	36 26	121 17	188	16 6*	Dec., 1873	June, 1890	......	Do.
V. O	Jolon	36 00	121 15	......	7 10	Sept., 1882	....do	......	T. T. Tidball.
R. R	Kings City	36 12	121 06	332	3 9	Oct., 1886	....do	......	Pacific Rwy. system.
R. R	San Ardo	36 09	121 10	......	3 10	Sept., 1886	....do	......	Do.
R. R	Castroville	36 46	121 47	17	1 6*	Jan., 1889	....do	......	Do.
V. O	Del Monte	36 38	121 53	......	1 0	Aug., 1880	July, 1881	......	Gas works.
	Tulare.								
S. S	Visalia	36 20	119 17	348	8 11*	Jan., 1870	May, 1886	......	J. W. Blake, Signal Service, and Pacific Rwy. system.
M. D	Fort Babbitt	36 20	119 23	384	1 7*	Nov., 1863	Nov., 1865	......	U. S. post hospital.
R. R	Goshen	36 21	119 24	286	13 6*	May, 1875	June, 1890	......	Pacific Rwy. system.
R. R	Lemoore	36 17	119 51	227	11 5*	Feb., 1879	....do	......	Do.
R. R	Tulare	36 13	119 19	289	16 3*	Mar., 1874	....do	......	Do.
V. O	Hanford	36 18	119 33	......	7 9*	Feb., 1879	Apr., 1889	......	A. E. Gribe, Dr. W. H. Miller.
V. O	Lewis Creek	36 12	118 58	480	11 5*	Jan., 1875	June, 1890	......	Stephen Barton, Pacific Rwy. system, and John Tuohy.
R. R	Traver	36 27	119 30	291	4 3*	Dec., 1885	....do	......	Pacific Rwy. system.
R. R	Esperanza	......	......	......	1 8	Sept., 1888	....do	......	Do.
R. R	Portersville	36 04	119 02	461	1 9*	Aug., 1888	....do	......	Do.
V. O	Tipton	36 06	119 18	267	1 4	Dec., 1886	Mar., 1888	......	Thomas Leggett.
	Kingsburgh Bridge	......	......	......	2 10	Nov., 1881	Aug., 1884	......	State engineering department.
	Inyo.								
R. R	Bishop Creek	37 21	118 22	......	6 4*	Nov., 1883	June, 1890	......	Pacific Rwy. system.
M. D	Fort Independence	36 50	118 10	4,598	12 4*	Nov., 1862	June, 1877	......	U. S. post hospital.
S. S	Keeler	36 35	117 50	3,622	6 3	Apr., 1884	June, 1890	......	Pacific Rwy. system and Signal Service.
	San Luis Obispo.								
R. R	Port Harford	......	......	......	1 4*	Dec., 1884	Apr., 1886	......	Pacific Rwy. system.
R. R	San Miguel	35 45	120 43	616	3 9*	Oct., 1886	June, 1890	......	Do.
R. R	Paso Robles	35 38	120 41	723	3 7*	Nov., 1886	....do	......	Do.

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Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record. Length.		Record. From—	Record. To (inclusive)—	T. or R. missing.	Authority.
	San Luis Obispo—Continued.	° '	° '	*Feet.*	*Yrs.*	*Mo.*				
V. O ..	San Luis Obispo ...	35 18	120 39	270	20	4*	Oct., 1869	Jan., 1890	......	Signal Service, J. E. Lewis, and California State Agricultural Society.
R. R ..	Templeton..........	35 30	120 41	....	3	8	Nov., 1886	June, 1890	......	Pacific Rwy. system.
R. R ..	Santa Margarita ...	35 25	120 38	996	1	5*	Feb., 1889	....do	......	Do.
V. O ..	Steeles	....	....	285	3	8*	Nov., 1886	....do	......	A. T. Mason.
	Kern.									
R. R ..	Delano	35 57	119 26	319	15	0*	May, 1875	June, 1890	......	Pacific Rwy. system.
R. R ..	Sumner............	35 24	119 00	422	13	10*	Dec., 1874	Oct., 1888	......	Do.
R. R ..	Caliente	35 17	118 41	1,290	14	5*	Jan., 1876	June, 1890	......	Do.
R. R ..	Tehachapi	35 06	118 26	3,964	13	5*	Nov., 1876	....do	......	Do.
R. R ..	Keene	35 12	118 40	2,705	13	0	July, 1877	....do	......	Do.
R. R ..	Mojave	35 03	118 11	2,751	13	5*	Nov., 1876	....do	......	Do.
M. D ..	Fort Tejon.........	34 55	118 44	3,245	6	8*	Mar., 1855	Aug., 1864	......	U. S. post hospital.
R. R ..	Girard	35 07	118 28	3,299	1	6*	Jan., 1889	June, 1890	......	Pacific Rwy. system.
R. R ..	Bakersfield	35 22	119 00	415	1	8	Nov., 1888	....do	......	Do.
V. O ..	McClung Ranch ...	35 21	119 11	350	3	0	Sept., 1879	Aug., 1882	......	T. B. McClung.
	San Bernardino.									
M. D ..	Fort Cady	34 58	116 40	3,000	3	1*	Jan., 1868	Jan., 1871	......	U. S. post hospital.
R. R ..	Daggett	34 51	116 53	6,824	1	2	July, 1883	Aug., 1884	......	Pacific Rwy. system.
R. R ..	Fenner	34 48	115 12	2,095	1	2	Aug., 1883	Sept., 1884	......	Do.
V. O ..	Needles............	34 41	114 28	485	2	0*	....do	Mar., 1890	......	Pacific Rwy. system, John Clarke, Chas. O. Johnson, J. Berkeley.
V. O ..	San Bernardino	34 06	117 18	950	19	8	July, 1870	June, 1890	......	Sidney P. Waite.
V. O ..	Lugonia...........	34 00	117 15	1,800	5	6*	Nov., 1883	Apr., 1888	......	J. D. B. Stillman, Leland Stillman.
R. R ..	Ontario............	34 04	116 40	981	3	10*	Dec., 1883	June, 1890	......	Elwood Chaffey and Pacific Rwy. system.
R. R ..	Colton.............	34 02	117 22	965	13	7*	Nov., 1876	....do	......	Pacific Rwy. system.
V. O ..	Rancho del Jurupa.	34 02	117 27	1,000	1	7*	Sept., 1852	Mar., 1854	......	U. S. post hospital.
V. O ..	Riverside	34 00	117 20	850	9	10*	Sept., 1880	June, 1890	......	A.S.White, W.E.Keith.
V. O ..	San Gorgonio Pass.	33 54	117 02	2,560	9	6*	Oct., 1874	Dec., 1887	......	John J. Ring, Welwood Murray.
V. O ..	Rancho del Chino..	33 59	117 44	1,000	1	2	July, 1851	Aug., 1852	......	U. S. post hospital.
V. O ..	Barstow	34 51	116 59	....	1	6*	Jan., 1889	June, 1890	......	George R. Gooding.
R. R ..	Beaumont	33 55	117 00	2,560	2	5	Jan., 1888	....do	......	Pacific Rwy. system.
V. O ..	Ring's Station......	34 02	116 56	4,300	7	10	Nov., 1874	Aug., 1882	......	John J. Ring.
V. O ..	Chino	33 58	117 43	....	1	0	Jan., 1889	Dec., 1889	......	John Wasson.
R. R ..	Banning............	33 56	116 55	2,317	3	5*	Sept., 1878	Mar., 1889	......	Pacific Rwy. system.
	Santa Barbara.									
V. O ..	Los Alamos	34 40	120 20	....	1	8*	Dec., 1884	Feb., 1889	......	Mr. Hore.
V. O ..	Santa Maria	35 00	120 30	220	5	0*	....do	June, 1890	......	L. E. Blochman.
V. O ..	Arroyo Grande.....	35 05	120 31	....	1	6*	....do	Apr., 1886	......	Lieut. W. A. Glassford.
V. O ..	Guadaloupe........	34 44	120 39	30	2	0*	Oct., 1885	Sept., 1887	......	Thomas Saulsbury, jr.
V. O ..	Santa Barbara	34 25	119 40	20	23	1*	Mar., 1864	June, 1890	......	Smithsonian collection, Dr. L. M. Dimmick, G. P. Tibbetts, Hugh D. Vail.
V. O ..	Lompoc	34 38	120 26	....	0	11	Dec., 1879	Oct., 1880	......	S. P. Henning.
V. O ..	Point Conception ..	34 27	120 27	258	13	0	Sept., 1876	June, 1890	......	U. S. Light-house Board.
	Ventura.									
V. O ..	San Buenaventura .	34 17	119 13	50	11	0*	July, 1875	June, 1886	......	J. F. Saxby, J. B. Saxby.
R. R ..	Santa Paula	34 21	119 00	286	1	10*	Aug., 1888	June, 1890	......	Pacific Rwy. system.
V. O ..	Nordhoff............	34 27	119 08	1,200	6	4*	Dec., 1881	Jan., 1889	......	R. Robinson.

List of stations in California for which meteorological data are given—Continued.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record. Length.	Record. From—	Record. To (inclusive)—	T. or R. missing.	Authority.
	Los Angeles.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
S. S...	Los Angeles........	34 03	118 15	330	18 5*	Feb., 1872	June, 1890	......	C. Duncommon, Pacific Rwy. system, Signal Service.
R. R..	Ravenna(South Side)	34 26	118 17	2,358	10 11*	July, 1879	June, 1890	......	Pacific Rwy. system.
R. R..	Newhall	34 25	118 33	1,268	13 6*	Nov., 1876	....do	......	Do.
R. R..	San Fernando......	34 16	118 26	1,066	12 2*	Oct., 1877	Dec., 1889	......	Do.
V. O..	Colegrove	34 05	118 14	300	7 1*	Jan., 1883	June, 1890	......	Seward Cole.
V. O..	El Monte	34 04	118 05	329	4 5*	Dec., 1872	June, 1877	......	G. H. Peck.
R. R..	Spadra	34 03	117 46	705	15 7*	Dec., 1874	June, 1890	......	Pacific Rwy. system.
R. R..	Santa Monica......	34 00	118 28	50	6 10*	July, 1879	....do	......	H. C. Towner and Pacific Rwy. system.
R. R..	Downey	33 55	118 07	112	5 1	Dec., 1885	....do	......	V. M. Hardy and Pacific Rwy. system.
M. D..	Drum Barracks	33 49	118 22	32	6 9*	May, 1864	Nov., 1871	......	U. S. post hospital.
R. R.	Anaheim	33 49	117 54	2[illegible]0	12 9	Oct., 1877	June, 1890	......	Pacific Rwy. system.
V. O..	Summit Hill	......	....	....	6 0	May, 1870	Dec., 1875	......	State Board of Health.
R. R..	Florence...........	33 58	118 13	153	1 6*	Jan., 1889	June, 1890	......	Pacific Rwy. system.
R. R..	Long Beach	33 44	118 12	41	1 4*	....do	....do	......	Do.
R. R..	Norwalk...........	33 53	118 04	95	1 6*	....do	....do	......	Do.
R. R..	Pomona	34 04	117 45	857	7 1	July, 1883	....do	......	Pomona public library and Pacific Rwy. system.
R. R..	Puente	34 02	117 57	323	1 6*	Jan., 1889	....do	......	Pacific Rwy. system.
R. R..	San Gabriel........	34 13	118 10	1,400	1 8*	Apr., 1881	....do	......	Abbot Kinney and Pacific Rwy. system.
R. R..	Santa Ana.........	33 44	117 53	137	1 6*	Jan., 1889	....do	......	Pacific Rwy. system.
R. R..	San Pedro	33 43	118 17	0	1 10*	Aug., 1888	....do	......	Do.
R. R..	Tropico............	......	....	428	2 6*	Jan., 1888	....do	......	Do.
R. R..	Whittier	33 58	118 02	239	1 11*	Aug., 1888	....do	......	Do.
V. O..	Pasadena	34 02	118 08	....	0 7	Dec., 1889	....do	......	H. S. Channing.
V. O..	Alosta	34 08	117 58	600	5 10	Sept., 1880	June, 1886	......	J. J. West.
	San Diego.								
R. R..	White Water	33 54	116 39	1,134	7 9*	Nov., 1877	Sept., 1885	......	Pacific Rwy. system.
R. R..	Cabazon	33 45	116 46	....	1 2	Aug., 1884	....do	......	Do.
R. R..	Indio	33 49	116 14	20	12 8*	Oct., 1877	June, 1890	......	Do.
V. O..	Fall Brook(Oakw'd)	33 2[illegible]	117 09	800	10 5*	Jan., 1876	Dec., 1887	......	Fred. E. Fox.
V. O..	Julian	33 04	116 36	....	5 4*	Nov., 1875	Aug., 1884	......	I. S. Buck.
R. R..	Mammoth Tank....	33 07	115 17	265	12 9*	Oct., 1877	June, 1890	......	Pacific Rwy. system.
V. O..	Poway	32 58	117 01	540	9 9*	Nov., 1878	July, 1888	......	G. W. Parnell, Adams Chapin.
M. D..	Fort Yuma.........	32 23	114 36	276	26 7*	Dec., 1850	Mar., 1883	......	U. S. post hospital.
S. S...	San Diego	32 45	117 08	93	40 11*	July, 1849	June, 1890	......	U. S. post hospital, Coast Survey, and Signal Service.
V. O..	Campo	32 37	116 30	253	8 2*	Oct., 1875	....do	......	Signal Service, and S. E. Gaskill.
V. O..	Paradise Valley....	32 35	116 50	91	1 8	May, 1872	Dec., 1873	......	J. H. Asher.
V. O..	Laguna.............	32 50	116 31	5,440	1 3*	Apr., 1885	Dec., 1886	......	Arch. Campbell.
V. O..	San Luis Rey	33 31	117 21	20	3 4*	July, 1850	Sept., 1878	......	U. S. post hospital, G. F. Merriam.
M. D..	New San Diego	32 41	117 13	10	6 9*	Jan., 1860	Apr., 1871	......	U. S. post hospital.
V. O..	El Cajon	32 46	116 57	475	1 1*	Nov., 1875	Apr., 1877	......	O. N. Sanford.
V. O..	Murietta...........	33 32	117 10	1,0[illegible]0	1 2	July, 1885	Aug., 1886	......	G. W. Fox.
R. R..	Cactus	32 53	114 57	395	1 3*	Jan., 1889	June, 1890	......	Pacific Rwy. system.
V. O..	Elsinore	33 35	117 17	....	2 3*	Dec., 1886	Feb., 1889	......	G. W. Varnum.
V. O..	National City......	32 40	117 05	....	1 0	July, 1889	June, 1890	......	J. E. Boal.
R. R..	Salton..............	33 25	115 56	—263	1 5*	Feb., 1889	....do	......	Pacific Rwy. system.
R. R..	Seven Palms.......	33 53	116 28	584	1 6*	....do	....do	......	Do.
R. R..	Volcano Springs ...	33 14	115 34	—222	1 7*	Dec., 1888	....do	......	Do.
V. O..	Dog Creek..........	......	....	....	2 5*	Jan., 1882	Jan., 1885	......	Dr. Louis Antenreith
V. O..	Otay Mesa.........	32 35	117 04	....	2 3*	Nov., 1884	Feb., 1887	......	A. Campbell
V. O..	Viejas	32 48	116 41	....	0 11	Dec., 1875	Oct., 1876	......	W. S. Emery.
V. O..	Escondido	33 18	117 08	....	9 6*	July, 1876	June, 1886	......	Mr. Merriam.

Appendix No. 33.

LIST OF STATIONS IN NEVADA FOR WHICH METEOROLOGICAL DATA ARE GIVEN.

The notes preceding Appendix No. 32 apply to this table as well.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record. Length.		Record. From—	Record. To (inclusive)—	T. or R. missing.	Authority.
	Washoe.	° ′	° ′	*Feet.*	*Yrs.*	*Mo.*				
R. R ..	Reno (1)............	39 33	119 47	4,497	20	2*	Feb., 1870	Sept., 1890	......	Pacific Rwy. system.
W. S ..	Reno (2)............	39 33	119 47	4,484	1	10*	Feb., 1888	....do	T.	C. M. Fassett, F. M. Rae, and Prof. W. M. Miller.
W. S ..	Verdi...............	39 30	119 58	4,895	2	3*	....do	....do	R.	H. A. Free and C. R. Carter.
R. R ..	Wadsworth........	39 38	119 19	4,077	19	9*	Feb., 1870	....do	......	Pacific Rwy. system.
	Humboldt.									
R. R ..	Brown's	40 01	118 41	3,929	19	10*	....do	....do	......	Pacific Rwy. system.
R. R ..	Golconda	40 57	117 34	4,392	12	1*	May, 1878	....do	......	Do.
R. R ..	Humboldt	40 38	118 14	4,236	20	0*	Feb., 1870	....do	......	Do.
R. R ..	Iron Point	40 58	117 21	4,375	8	0*	....do	Apr., 1878	T.	Do.
M. D ..	Camp McDermit ...	41 58	117 45	4,700	22	1*	Dec., 1865	May, 1869	......	U. S. post hospital.
M. D ..	Camp McGarry	41 30	119 05	6,000	2	11*	Nov., 1865	Nov., 1868	......	Do.
W. S ..	Mill City	40 40	118 06	4,226	2	2*	Feb., 1888	Sept., 1890	......	Geo. L. Pettygrove.
M. D ..	Camp W. Scott	41 34	117 27	....	3	7*	Dec., 1866	July, 1870	......	U. S. post hospital.
R. R ..	Winnemucca (1) ...	40 59	117 43	4,358	20	3*	Feb., 1870	Aug., 1890	......	Pacific Rwy. system.
S. S...	Winnemucca (2) ...	40 58	117 43	4,340	11	5*	July, 1877	June, 1890	......	Signal Service.
	Elko.									
R. R ..	Carlin	40 43	116 07	4,897	20	6*	Feb., 1870	Aug., 1890	......	Pacific Rwy. system.
R. R ..	Cedar Pass	41 08	114 50	....	7	7*	Mar., 1870	Apr., 1878	......	Do.
R. R ..	Elko	40 50	115 46	5,065	20	6*	Feb., 1870	Sept., 1890	......	Do.
R. R ..	Fenelon	41 11	114 40	......	2	7*	Jan., 1888	....do	......	Do.
R. R ..	Halleck	40 56	115 30	5,229	21	2*	Feb., 1870	....do	......	Do.
M. D..	Camp Halleck	40 47	115 20	5,671	13	7*	Oct., 1862	Oct., 1886	......	U. S. post hospital.
R. R ..	Otego	41 09	114 36	....	9	3*	Oct., 1877	Aug., 1887	......	Pacific Rwy. system.
R. R ..	Tecoma.............	41 18	114 07	4,812	13	2*	July, 1877	Sept., 1890	......	Do.
R. R ..	Toano	41 07	114 26	5,975	20	1*	Feb., 1870	June, 1890	......	Do.
W. S ..	Tuscarora	41 15	116 15	6,400	1	10*	Aug., 1888	Aug., 1890	R.	Prof. M. D. Bowen.
R. R ..	Wells................	41 07	114 56	5,628	20	5*	Feb., 1870	Sept., 1890	......	Pacific Rwy. system.
	Lander.									
S. S ...	Austin..............	39 29	117 05	6,594	5	1*	Oct., 1877	Sept., 1890	......	Signal Service and O B. Vincent.
R. R ..	Battle Mountain ...	40 38	116 52	5,311	20	5*	Apr., 1870	....do	......	Pacific Rwy. system.
	Eureka.									
R. R ..	Beowawe	40 36	116 32	4,695	20	6*	Mar., 1870	Sept., 1890	......	Pacific Rwy. system.
V. O ..	Eureka.............	39 29	115 56	6,569	2	6*	Jan., 1889	July, 1890	......	M. M. Ley.
R. R ..	Palisade	40 39	116 12	4,840	12	6*	Mar., 1878	Sept., 1890	......	Pacific Rwy. system.
	White Pine.									
W. S ..	Ely..................	39 10	114 57	....	2	5*	Feb., 1888	Sept., 1890	......	A. D. Compton and J F. Cupid.
S. S...	Hamilton...........	39 15	115 28	....	3	2*	Aug., 1877	Sept., 1880	T.	H. Carpenter.
M. D..	Fort Ruby.........	40 01	115 35	6,153	5	3*	Jan., 1863	Oct., 1868	......	U. S. post hospital.

List of stations in Nevada for which meteorological data are given—Continued.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record. Length.	From—	To (inclusive)—	T. or R. missing.	Authority.
	Churchill.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
R. R ..	Hot Springs	39 49	119 02	4,072	20 5*	Feb., 1870	Sept., 1890	......	Pacific Rwy. system.
	Lyon.								
M. D ..	Fort Churchill	39 20	119 05	4,284	7 10*	Oct., 1860	May, 1869	......	U. S. post hospital.
W. S ..	Dayton	39 13	119 37	4,369	1 1*	Feb., 1888	May, 1889	R.	Prof. Robert Lewers.
W. S ..	Wellington	38 43	119 33	6,500	1 0*	Apr., 1888	....do	......	A. C. Pratt and D. W. Fish.
	Ormsby.								
V. O ..	Carson City	39 08	119 47	4,628	13 6*	Jan., 1875	Sept., 1890	......	Signal Service and Prof. Charles W. Friend.
	Douglas.								
W. S ..	Genoa	38 59	119 51	4,824	2 4*	Feb., 1888	Sept., 1890	......	Prof. J. L. Smith and G. W. Dungan.
	Esmeralda.								
R. R ..	Hawthorne	38 33	118 36	....	6 6*	Jan., 1884	Sept., 1890	......	Pacific Rwy. system.
	Lincoln.								
W. S ..	El Dorado Canyon .	35 45	114 42	900	2 6*	Mar., 1888	Sept., 1890	......	P. W. Davis.
S. S ...	Pioche	37 56	114 26	6,110	8 5*	Aug., 1877	....do	......	Signal Service and W. J. and N. P. Dooley.

APPENDIX No. 34.

MONTHLY AND ANNUAL PRECIPITATION AT STATIONS IN CALIFORNIA.

Interpolated values are entered in brackets [ ]. As a rule interpolations have been made from the Monthly Weather Review Charts, which contain data from all available sources and thus afford facilities for a very close approximation to the actual conditions which existed during the interpolated periods. Reference: Capital T indicates a trace of precipitation. Letters of the alphabet set against the data for any month indicate the number of days missing from that month; thus "c" indicates 3 days missing.

ALCALDE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	0.00	0.10	0.00	4.00	1.68	....
1889	0.50	0.40	4.12	1.40	0.62	0.00	0.00	0.00	0.00	4.95	1.50	12.50	25.99
1890	4.10	5.93	1.30	0.00	0.00	0.00	......	......	......	......	......	......	....
Means	2.30	3.16	4.12	0.70	0.31	0.00	0.00	0.00	0.05	2.48	2.75	7.09	22.96

CRESCENT CITY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	0.00	0.00	1.96	3.77	31.93	26.26	....
1886	18.28	8.19	9.00	8.59	1.50	0.11	1.12	0.04	0.12	5.12	1.26	19.28	72.61
1887	17.94	9.11	7.24	5.65	4.64	1.20	0.00	T	0.08	1.08	5.79	16.66	69.39
1888	22.16	3.52	5.86	1.42	1.04	7.30	0.32	0.02	0.50	3.04	5.85	7.07	58.40
1889	6.11	2.69	10.85	5.75	10.91	0.72	0.14	0.10	1.52	13.76	7.12	20.58	80.25
1890	24.98	23.49	13.51	4.07	0.52	3.27	......	......	......	......	......	......	....
Means	17.95	9.40	9.29	5.10	3.72	2.52	0.32	0.03	0.84	5.35	10.39	17.97	82.88

CRESCENT CITY, L. H., CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	......	......	......	......	......	14.25	....
1886	7.96	......	4.98	5.56.	......	......	0.00	0.00	0.00	4.09	......	12.60	....
1887	12.90	7.86	4.63	6.69	......	......	0.00	0.00	0.43	0.97	4.22	12.60	....
1888	22.46	3.25	[5.00]	3.13	0.65	6.49	0.00	0.00	0.00	2.04	4.92	7.19	[55.13]
1889	5.27	3.40	10.86	5.65	10.89	[0.59]	0.00	0.00	1.80	10.95	6.69	20.94	[76.95]
1890	24.25	24.57	14.57	3.82	0.59	2.12	0.00	0.00	0.00	0.96	0.00	8.66	79.54
Means	14.57	9.77	8.01	4.97	4.04	3.04	0.00	0.00	0.45	3.80	3.96	13.52	66.13

ALMADEN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	0.43	0.80	....
1887	1.52	8.68	0.92	1.60	0.00	0.00	0.00	0.00	0.20	0.05	0.78	4.44	18.19
1888	4.51	1.24	4.73	0.32	0.64	0.16	0.00	0.00	0.67	0.00	4.86	3.72	20.85
1889	0.55	0.69	6.20	0.79	2.01	0.00	0.00	0.00	0.00	5.66	2.73	14.11	32.74
1890	10.90	5.92	3.74	0.65	1.35	0.00	......	......	......	......	......	......	....
Means	4.37	4.13	3.90	0.84	1.00	0.04	0.00	0.00	0.29	1.90	2.20	5.77	24.44

Monthly and annual precipitation at stations in California—Continued.

ALOSTA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	......	......	......	......	......	......	......	......	0.00	1.15	0.27	7.57	......
1881	2.70	1.14	2.51	1.62	0.00	0.00	0.00	0.00	0.00	1.27	0.15	0.74	10.13
1882	1.01	4.91	5.31	1.65	1.03	0.00	0.00	0.00	0.00	1.06	2.28	0.00	17.25
1883	0.45	6.55	3.89	1.43	2.32	0.00	0.00	0.00	0.00	1.95	0.75	1.50	18.84
1884	7.94	21.97	16.27	6.55	1.15	2.54	0.00	0.00	0.00	0.32	0.75	5.49	62.98
1885	2.21	0.00	0.32	2.83	0.17	0.00	0.00	0.00	0.00	0.29	6.32	2.50	14.64
1886	10.05	2.55	2.74	4.50	0.00	0.00	......	......	......	......	......	......	......
Means	4.06	6.19	5.17	3.10	0.78	0.42	0.00	0.00	0.00	1.01	1.65	2.97	25.35

ALTA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	13.75	6.56	3.73	1.32	0.66	......	......	......	......	......	3.94	......
1871	5.21	5.45	7.00	3.50	1.50	0.00	0.00	0.00	0.00	0.00	T	6.50	29.16
1872	11.25	13.85	0.45	0.38	0.00	0.00	0.00	0.00	0.00	0.25	0.19	6.50	32.87
1873	1.65	10.00	0.95	3.03	[1.50]	0.00	0.00	0.00	0.40	0.00	0.90	15.59	[34.02]
1874	12.66	7.17	3.76	5.75	1.27	0.00	0.00	0.00	0.00	3.92	12.86	0.09	47.48
1875	13.17	0.01	3.40	0.40	0.12	2.00	0.00	0.00	0.00	0.02	18.52	8.30	45.94
1876	7.70	4.72	9.08	1.07	1.80	0.00	0.02	0.00	0.00	7.00	0.70	0.00	32.09
1877	10.00	2.35	6.10	2.60	2.61	0.80	0.00	0.00	0.00	1.70	3.90	1.00	31.06
1878	9.10	14.80	11.65	2.50	0.33	0.00	0.00	0.00	0.60	2.96	4.18	1.00	47.12
1879	12.80	13.10	24.30	7.73	2.45	0.00	0.00	0.00	0.00	1.50	9.53	10.02	81.43
1880	2.70	4.90	3.10	11.60	2.90	0.00	0.00	0.00	0.00	0.00	1.00	13.80	40.00
1881	21.00	11.80	3.50	0.50	0.00	0.00	0.00	0.00	1.12	4.50	5.60	13.60	61.62
1882	5.93	6.40	15.40	3.20	1.15	0.80	0.00	0.00	2.70	7.65	5.64	2.31	51.18
1883	4.08	1.60	9.06	3.43	6.07	0.00	0.00	0.00	0.60	1.60	2.05	3.10	31.59
1884	3.50	8.60	7.00	5.20	0.50	3.00	0.00	0.00	0.12	1.00	0.00	14.08	43.00
1885	1.50	0.60	0.10	2.48	0.00	1.00	......	......	......	......	......	......	......
Means	8.15	7.44	6.96	3.57	1.47	0.52	T	0.00	0.40	2.29	4.65	6.68	42.13

ANAHEIM, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	......	......	2.52	......
1878	2.19	4.07	1.49	1.93	0.52	0.00	0.00	0.00	0.00	0.15	T	0.95	11.30
1879	1.96	0.57	0.35	0.37	T	0.00	0.00	0.00	0.00	0.11	1.72	3.10	8.18
1880	1.29	1.32	1.57	2.20	0.00	0.00	0.00	0.00	0.00	0.28	0.44	4.92	12.02
1881	0.25	0.28	0.85	0.06	0.00	0.00	0.00	0.00	0.00	0.81	0.34	0.37	2.96
1882	0.40	1.90	2.42	0.48	0.40	0.00	0.00	0.00	0.00	0.26	0.78	0.00	6.64
1883	1.48	1.98	1.22	0.10	2.78	0.00	0.00	T	0.00	1.12	0.00	1.40	10.08
1884	2.80	10.58	6.70	1.75	0.54	1.28	0.00	0.00	0.00	0.15	0.64	3.72	28.16
1885	0.61	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.00	T	2.93	1.16	5.34
1886	4.63	0.82	2.70	2.51	0.00	0.00	0.00	T	0.00	0.00	0.33	T	10.99
1887	0.43	5.71	0.00	2.21	T	0.00	0.00	0.00	T	0.75	0.92	2.16	12.18
1888	6.29	0.92	5.90	T	0.00	0.00	T	0.00	0.00	T	3.75	4.19	21.05
1889	0.14	1.28	7.97	0.24	0.57	0.00	0.00	T	0.76	2.31	0.30	10.95	24.52
1890	3.36	1.54	0.78	0.00	T	0.00	......	......	......	......	......	......	......
Means	1.99	2.38	2.46	0.96	0.37	0.10	T	T	0.06	0.50	1.01	2.73	12.56

ANDERSON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	0.38	1.08	5.42	2.15	0.03	0.00	0.00	0.00	2.83	0.50	6.57	......
1887	1.41	5.76	0.89	3.12	0.66	1.20	0.00	0.00	0.15	0.00	1.72	6.03	20.94
1888	10.25	3.61	9.50	0.99	0.75	7.27	0.28	0.00	0.61	0.00	6.08	8.70	48.04
1889	0.44	1.72	12.00	4.09	5.99	1.73	0.00	0.00	0.00	12.32	5.38	18.24	61.91
1890	10.56	5.93	8.29	......	......	......	......	......	......	......	......	......	......
Means	5.66	3.48	6.35	3.40	2.39	2.56	0.07	0.00	0.19	3.79	3.42	9.88	41.19

Monthly and annual precipitation at stations in California—**Continued.**

ANTIOCH, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	......	......	......	......	0.15	0.44	......
1879	1.57	1.69	1.50	0.73	0.88	0.05	0.00	0.00	0.00	0.77	1.38	1.51	10.08
1880	0.95	1.07	1.14	3.65	0.33	0.00	0.00	0.00	0.00	0.00	0.25	8.25	15.64
1881	1.74	1.54	1.11	1.30	T	0.00	0.00	0.00	T	T	0.95	1.89	8.53
1882	0.95	1.20	2.35	0.25	0.00	0.00	0.00	0.00	0.13	1.02	2.49	0.75	9.14
1883	1.89	0.48	1.99	0.60	2.55	0.00	0.00	0.00	0.13	0.70	0.55	0.33	9.22
1884	3.50	3.64	5.73	2.62	0.00	1.15	0.00	T	T	1.25	T	2.79	20.68
1885	1.16	0.12	0.35	0.96	0.00	T	T	0.00	0.00	0.00	4.87	2.19	9.65
1886	3.60	0.00	0.56	2.03	T	0.00	0.00	0.00	0.00	0.40	T	1.02	7.61
1887	0.38	3.87	0.49	0.95	0.00	0.00	0.00	0.00	0.41	0.00	0.29	2.30	8.69
1888	2.84	1.24	2.05	0.00	0.50	0.00	0.00	0.00	0.70	0.00	1.82	2.88	12.03
1889	0.95	0.52	4.81	0.46	1.07	T	0.00	T	[0.00]	4.51	2.09	6.54	[20.95]
1890	5.16	2.97	2.45	0.31	0.54	0.00	......	......	......	......	......	......	......
Means	2.06	1.53	2.04	1.16	0.49	0.10	T	T	0.12	0.79	1.24	2.57	12.12

APTOS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	......	......	......	......	0.00	0.10	......	1.55	0.30	11.34	......
1885	2.86	0.19	0.43	1.78	0.13	0.00	0.18	0.00	0.07	0.02	10.65	3.83	20.14
1886	7.61	0.80	4.09	7.10	0.27	0.00	0.00	0.00	0.00	0.70	0.81	1.53	22.94
1887	0.95	8.82	0.76	1.61	0.19	0.00	0.00	0.00	0.47	0.05	1.11	3.72	17.68
1888	5.85	1.59	5.32	0.50	0.79	0.25	0.00	0.00	0.45	0.00	5.75	4.31	24.81
1889	0.50	0.87	5.90	0.85	1.71	0.00	0.00	0.00	0.00	7.49	2.33	18.29	37.94
1890	10.29	4.60	3.16	2.30	1.66	0.00	......	......	......	......	......	......	......
Means	4.68	2.81	3.28	2.37	0.79	0.04	0.03	0.02	0.20	1.64	3.50	7.17	26.53

ARCATA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	4.41	3.52	8.27	1.32	0.00	0.00	0.00	0.00	3.19	1.77	9.03	......
1887	9.43	8.73	2.65	6.49	2.65	1.96	0.00	0.00	0.46	0.44	3.40	7.47	......
1888	11.67	2.57	2.77	1.37	0.90	4.85	0.00	0.00	0.00	1.41	3.40	4.79	43.68
1889	4.38	1.70	5.75	3.85	7.23	0.52	0.00	0.00	0.00	8.27	3.61	12.57	33.73
1890	16.85	14.78	11.94	2.26	2.05	......	......	......	......	......	......	......	47.88
Means	10.58	6.44	5.33	4.45	2.83	1.83	0.00	0.00	0.23	3.33	3.04	8.46	46.52

ARROYO GRANDE, CAL.

(Averages for the period December, 1884, to April, 1886.)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Means	2.40	0.77	1.05	1.78	0.00	0.00	0.00	0.00	0.00	0.00	12.38	4.13	22.51

ATHLONE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	......	......	......	......	......	1.31	......
1886	2.87	0.11	2.78	3.18	0.00	0.10	0.00	0.00	0.00	0.32	0.92	0.69	10.97
1887	0.38	3.52	0.23	1.62	0.00	0.23	0.00	0.00	0.58	0.00	0.23	1.11	7.90
1888	2.29	0.00	1.70	0.30	0.60	0.00	0.00	0.00	0.25	0.00	2.56	1.59	9.29
1889	0.36	0.39	2.48	0.77	0.93	0.20	0.00	0.00	0.00	3.59	2.36	5.74	16.82
1890	3.14	1.19	1.79	0.54	0.72	0.00	......	......	......	......	......	......	......
Means	1.81	1.04	1.80	1.28	0.45	0.11	0.00	0.00	0.21	0.98	1.52	2.09	11.29

AUBURN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	7.31	3.92	2.63	0.45	0.81	0.00	0.00	0.00	0.00	0.00	0.46	......
1871	7.21	2.36	1.85	3.57	2.03	0.00	0.00	0.00	0.00	0.54	2.80	13.55	33.94
1872	6.80	9.35	3.59	2.50	0.65	0.20	0.00	0.00	0.00	0.38	3.13	8.43	35.03
1873	3.74	7.41	0.53	1.22	0.32	0.00	0.00	0.00	0.00	0.34	1.25	11.97	25.81

Monthly and annual precipitation at stations in California—Continued.

AUBURN, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	7.46	4.14	6.26	2.56	0.57	0.00	0.00	0.00	0.00	1.57	9.64	0.82	33.02
1875	10.00	0.44	2.73	0.10	0.61	1.82	0.00	0.00	0.00	0.85	11.39	6.05	33.99
1876	7.56	5.62	10.10	1.97	0.61	0.00	0.41	0.21	0.00	4.52	0.65	0.00	31.65
1877	6.94	1.47	2.14	0.72	1.53	0.27	0.00	0.00	0.00	0.99	2.46	1.55	18.07
1878	10.61	10.19	7.60	1.73	0.98	0.00	0.00	0.00	0.50	0.89	1.53	0.91	34.94
1879	6.34	7.16	8.78	5.94	2.43	0.46	0.00	0.00	0.00	2.33	3.82	7.88	45.14
1880	3.13	4.90	2.62	13.02	3.85	0.00	0.00	0.00	0.00	0.00	0.25	13.91	41.68
1881	9.61	8.20	2.43	1.38	0.00	1.40	0.00	0.00	0.92	2.72	3.01	5.87	35.54
1882	4.60	4.99	6.05	4.63	0.53	0.28	0.00	0.00	0.84	5.19	4.08	1.65	32.84
1883	2.86	1.06	5.19	0.70	4.07	0.00	0.00	0.00	1.70	2.51	1.00	2.52	21.61
1884	5.33	7.63	10.17	8.02	0.85	1.23	0.00	0.00	0.56	2.25	0.00	16.37	52.41
1885	1.74	1.27	0.57	2.10	0.00	0.70	0.00	0.00	0.64	0.00	15.24	4.05	26.31
1886	8.25	0.00	4.10	9.38	0.65	0.00	0.00	0.00	0.00	0.89	1.26	4.88	29.41
1887	2.04	12.38	1.50	4.34	0.30	0.00	0.00	T	1.09	0.00	1.22	4.90	27.77
1888	7.07	1.40	3.25	0.80	0.40	1.55	0.00	[T]	0.30	0.00	4.20	5.82	[24.79]
1889	0.33	0.52	9.57	1.36	4.65	0.00	0.00	0.00	0.00	5.75	4.85	11.94	38.97
1890	8.97	3.96	8.08	2.83	2.30	0.00							
Means	6.03	4.85	4.81	3.40	1.32	0.42	0.02	0.01	0.33	1.59	3.59	6.18	32.55

BABBITT, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1863											0.88	0.25	
1864	0.48	0.00	0.62	0.64	0.60	0.00	0.00	0.00	[0.00]	[0.00]	[0.00]	1.50	[3.84]
1865	1.29	0.90	[0.00]	0.00	0.00	[0.00]	[0.00]	[0.00]	[0.00]	0.00	0.85	[0.85]	[3.89]
1866	3.12	1.15											
Means	1.63	0.68	0.31	0.32	0.30	0.00	0.00	0.00	0.00	0.00	0.58	0.87	4.69

BAKERSFIELD, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888											0.63	0.82	
1889	0.57	0.20	1.88	0.15	0.22	0.00	0.00	0.00	0.00	2.04	0.22	1.75	7.03
1890	1.20	0.16	0.24	0.00	0.05	0.00							
Means	0.88	0.18	1.06	0.08	0.14	0.00	0.00	0.00	0.00	2.04	0.42	1.28	6.08

BANNING, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878									0.00	0.00	0.00	1.08	
1879	2.37	0.66	0.00	1.48	0.00	0.00	0.00	0.00	0.00	0.02	2.84	4.55	11.92
1880	0.75	1.59	2.77	2.40	0.00	0.00	0.00	0.00	0.00	0.52	0.87	[3.00]	[11.90]
1888	0.89	3.50	6.93	0.80	0.50	0.00	0.18	0.00	0.10	0.26	5.25	[3.00]	[21.41]
1889	0.98	2.01	6.48										
Means	1.25	1.94	4.04	1.56	0.17	0.00	0.06	0.00	0.02	0.20	2.24	2.91	14.39

BARSTOW, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.14	0.04	0.93	0.00	0.12	0.00	0.00	0.13	0.07	0.23	0.70	3.87	6.23
1890	0.36	0.15	T	0.07	0.00	0.00	0.00						
Means	0.25	0.10	0.46	0.04	0.06	0.00	0.00	0.13	0.07	0.23	0.70	3.87	5.91

BEAUMONT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	1.39	1.18	5.78	0.87	0.40	0.00	0.00	0.50	0.00	0.30	3.92	4.19	18.53
1889	1.15	1.95	5.27	0.61	0.29	0.00	0.00	0.00	0.00	1.56	0.67	11.09	22.59
1890	3.81	4.74	1.13	1.15	1.05								
Means	2.12	2.62	4.06	0.88	0.58	0.00	0.00	0.25	0.00	0.93	2.30	7.64	21.38

Monthly and annual precipitation at stations in California—Continued.

BENICIA BARRACKS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1849											4.46	3.80	
1850	4.44	1.68	2.45	0.50	0.00	0.00	0.00	0.00	0.01	0.00	1.03	2.18	12.29
1851	0.88	0.23	5.83	1.37	0.59	0.00	0.00	0.00	0.04	0.10	1.34	4.92	15.30
1852	0.36	0.00	4.78	0.03	0.00	0.03	0.00	0.00	0.01	1.05	2.28	9.03	17.57
1853	2.48	0.44	2.66	3.12	0.36	0.00	0.00	0.00	0.00	0.04	1.71	0.99	11.80
1854	2.06	4.80	2.05	1.56	0.00	0.01	0.00	0.00	0.00	1.12	0.22	0.55	12.37
1855	2.86	2.79	3.13	3.25	2.01	0.00	0.00	0.00	0.00	0.00	0.88	2.62	17.54
1856	4.81	0.27	1.17	1.72	0.75	0.03	0.00	0.00	0.00	0.46	0.98	1.91	12.10
1857	1.69	4.78	1.17	0.00	0.01	0.12	0.00	0.00	0.00	0.32	1.72	2.34	12.15
1858	2.05	1.01	2.49	0.81	0.12	0.01	0.00	0.10	0.00	1.89	0.00	3.91	12.39
1859	1.35	4.26	1.16	0.29	1.43	0.00	0.00	0.00	0.00	0.00	4.10	1.08	13.67
1860	0.68	0.77	2.90	2.80	1.75	0.00	0.33	0.00	0.05	0.64	0.20	4.37	14.49
1861	1.63	2.81	2.27	0.20	0.43	T	0.00	0.00	0.00	0.00	2.47	3.56	13.37
1862	10.97	2.83	1.87	[1.50]	0.50	0.02	0.00	0.03	0.00	0.30	0.02	1.72	[19.76]
1863	1.40	3.26	1.54	2.28	0.81	0.00	T	0.00	0.01	0.00	1.82	1.25	12.37
1864	0.85	0.05	0.79	1.08	0.51	0.00	0.00	0.07	T	[0.70]	6.19	6.07	[16.31]
1865	2.97	1.05	[2.50]	0.75	0.32	0.00	0.02	0.00	[T]	[0.70]	2.48	0.01	[10.80]
1870												1.74	
1871	[3.25]	2.61	0.44	0.45	0.00	0.00	0.00	0.00	T	0.16	1.47	11.11	[19.49]
1872	2.14	5.00	1.24	0.78	0.32	0.08	0.00	0.00	0.00	0.02	1.25	[3.44]	[14.27]
1873	[3.26]	[2.28]	[2.48]	0.22	0.00	0.00	0.00	0.00	0.00	0.11	0.70	8.03	[17.08]
1874	4.38	1.09	2.47	0.66	0.46	0.00	0.03	0.00	0.15	0.92	3.74	0.00	13.90
1875	6.34	0.00	0.51	0.02	T	0.64	0.00	0.00	0.00	0.10	4.02	3.31	14.94
1876	4.35	3.55	3.43	0.82	0.32	0.00	T	0.00	T	2.80	0.10	0.00	15.37
1877	3.68	1.12	0.44	0.28	0.15	0.06	0.00	0.00	0.00	[0.72]	0.46	0.90	[7.81]
1878	9.40	7.37	2.57	0.68	0.17	0.00	T	T	0.10	0.32	0.54	0.05	21.20
1879	2.99	2.37	5.69	0.67	0.74	0.00	0.00	0.00	0.00	0.55	2.17	2.49	17.67
1880	1.32	1.08	1.23	8.15	0.84	0.00	0.00	0.00	0.00	0.00	0.18	8.21	21.01
1881	4.74	2.32	0.85	1.70	T	0.18	0.00	0.00	0.00	0.19	1.45	2.70	14.13
1882	1.64	1.61	3.24	0.90	0.12	0.02	0.00	0.00	0.32	1.59	3.35	1.36	14.15
1883	1.44	1.04	2.66	1.40	3.41	0.00	0.00	0.00	0.68	0.96	0.53	0.78	12.90
1884	3.61	4.57	7.93	4.16	0.10	2.47	0.00	0.03	0.15	1.07	0.01	7.19	31.29
1885	2.06	0.31	0.47	2.24	T	T	T	T	0.02	0.30	8.75	5.86	20.01
1886	5.98	0.07	2.28	4.76	0.14	0.00	0.01	0.00	T	1.46	0.36	1.42	16.48
1887	1.12	7.17	0.59	2.04	T	T	T	0.00	0.42	[0.72]	0.38	3.50	[15.94]
1888	5.84	[2.28]	[2.48]	T	0.33	0.38	0.01	0.00	0.90	[0.72]	2.92	3.82	[19.68]
1889	0.94	0.34	5.53	0.88	2.01	T	0.00	0.00	0.00	5.07	3.11	11.18	29.06
1890	7.35	4.85	4.01	1.04	0.88	T							
Means	3.26	2.28	2.48	1.47	0.53	0.11	0.01	0.01	0.09	0.72	1.87	3.44	16.27

BERENDA, CAL.

1889			3.02	1.71	1.41	0.00	0.00	0.00	0.00	3.67	2.26	4.66	
1890	2.48	0.73	1.37	0.65	0.64	0.00							
Means	2.48	0.73	2.20	1.18	1.02	0.00	0.00	0.00	0.00	3.67	2.26	4.66	18.20

BERKELEY, CAL.

1886												3.92	
1887	1.66	9.41	0.98	2.53	0.06	0.04	0.01	0.00	0.40	0.00	0.76	2.94	18.79
1888	5.84	1.92	4.50	0.20	0.42	0.50	T	0.00	0.59	0.02	2.71	3.79	20.49
1889	0.78	0.54	7.58	0.72	1.50	0.06	0.00	0.00	0.00	5.80	2.39	12.59	31.96
1890	11.16	5.70	4.74	2.18	1.44	T							
Means	4.86	4.39	4.45	1.41	0.86	0.15	T	0.00	0.33	1.94	1.95	5.81	26.15

BIDWELL, FORT, CAL.

1863											3.94e	2.45	
1864	1.17	0.35	1.41	1.06									
1865													
1866									0.00	1.00	3.50	5.80	

Monthly and annual precipitation at stations in California—Continued.

BIDWELL, FORT, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	12.00	4.80	6.70	1.30	T	0.60	0.10	1.40	2.80	0.80	3.10	8.20	41.80
1868	3.50	0.40	4.00	0.60	2.40	4.10	[0.28]	0.00	0.20	0.10	0.80	0.90	[17.28]
1869	2.50	0.40	0.70	[1.65]	0.70	0.20	0.70	T	0.45	0.00	2.37	2.30	[11.97]
1870	12.71	5.40	3.21	1.41	2.87	1.36	0.76	0.05	0.00	0.03	2.29	9.10	39.19
1871	1.23	3.36	3.21	[1.65]	0.97	0.16	0.38	0.02	0.20	0.20	0.79	3.25	[15.42]
1872	1.16	3.97	1.32	0.77	1.82	0.06	T	0.26	1.18	0.46	1.69	1.94	14.63
1873	2.22	1.66	0.60	2.06	0.78	0.10	0.14	0.21	0.40	0.63	1.14	3.29	13.23
1874	1.51	1.08	1.05	1.12	0.64	1.06	0.05	0.27	T	0.37	2.74	0.13	10.02
1875	2.10	0.07	2.15	0.45	1.30	1.00	T	0.05	0.00	1.80	2.62	1.54	13.08
1876	3.57	0.32	0.80	0.53	0.98	0.43	0.00	0.00	0.00	1.99	4.32	2.05	14.99
1877	9.36	3.30	4.10	2.14	4.66	2.10	0.10	0.35	0.10	0.80	3.03	0.35	30.39
1878	0.75	4.65	2.35	1.05	0.82	0.20	0.25	0.37	0.70	0.30	0.25	0.20	11.89
1879	[4.24]	[2.52]	[2.60]	1.00	1.40	0.15	0.15	0.30	0.10	1.34	1.75	6.60	[22.15]
1880	1.30	13.80	3.36	5.60	1.38	0.26	0.72	0.42	0.05	0.50	0.56	16.09	24.04
1881	10.00	6.00	1.50	3.02	0.84	1.59	0.32	0.10	0.24	3.55	2.87	3.40	33.43
1882	3.44	2.82	1.46	1.72	0.64	0.38	0.16	0.00	0.48	2.73	0.92	1.77	16.52
1883	2.52	0.64	0.76	1.56	1.30	T	T	0.00	T	1.18	1.14	1.06	10.16
1884	6.08	2.70	6.57	2.83	1.40	4.20	1.04	0.09	1.40	0.73	T	6.81	33.85
1885	2.09	1.82	0.04	3.45	1.99	[1.00]	1.38	[0.19]	0.09	0.75	8.46	3.74	[25.00]
1886	5.78	2.16	1.48	2.20	1.44	0.78	0.41	0.04	0.00	1.36	1.06	4.25	20.96
1887	3.31	4.85	0.97	1.96	1.47	0.73	0.18	0.21	0.05	0.00	0.38	2.40	16.51
1888	3.28	1.81	3.28	0.16	1.50	2.38	0.34	0.04	0.33	0.20	......	......	....
1889	2.81	0.20	7.31	1.08	1.62	0.78	0.00	0.00	0.00	3.61	2.20	3.78	23.39
1890	7.45	3.97	3.97	0.92	1.07	0.33	......	......	......	......	......	......	....
Means	4.24	2.52	2.60	1.65	1.42	1.00	0.28	0.19	0.37	1.02	2.16	3.39	20.84

BIG DRY CREEK, CAL.

1871	......	......	......	......	......	......	......	......	0.00	0.04	1.73	8.52	....
1872	1.85	1.42	5.41	0.99	0.30	0.02	0.00	0.00	0.00	0.00	0.00	7.98	17.97
1873	1.35	6.47	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.91	15.26
1874	3.16	2.47	6.64	1.73	0.16	0.00	0.00	0.00	0.20	1.91	2.89	0.00	19.16
1875	6.62	0.45	0.36	0.21	0.34	0.72	0.00	0.00	0.00	0.00	6.10	1.46	16.26
1876	4.44	4.64	4.28	0.00	0.00	0.07	0.35	0.00	0.00	1.00	0.00	0.00	14.78
1877	1.81	0.00	1.57	0.00	0.40	0.00	0.00	0.00	0.00	0.03	0.86	0.95	5.62
1878	7.66	8.09	3.39	0.22	0.38	0.00	0.00	0.00	0.00	2.36	0.17	0.00	22.27
Means	3.84	3.36	3.17	0.45	0.22	0.12	0.05	0.00	0.02	0.67	1.47	3.23	16.60

BIRD'S LANDING, CAL.

Averages for 3 years	2.68	1.78	3.19	1.21	0.00	0.00	0.00	0.01	0.05	0.84	3.72	1.36	14.84

BISHOP CREEK, CAL.

1883	......	......	......	......	......	......	......	......	......	......	0.00	0.38	....
1884	0.62	0.61	0.94	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	3.25
1885	0.00	0.00	0.67	0.14	0.00	0.00	0.00	0.00	0.00	0.02	[0.35]	0.00	[1.18]
1886	1.03	0.00	[0.50]	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	[2.11]
1887	0.65	1.58	0.00	0.35	0.55	0.35	0.00	0.00	0.15	0.15	0.05	1.10	4.93
1888	1.37	0.47	0.05	0.00	0.00	0.35	0.20	[0.00]	0.00	0.00	1.72	0.40	[4.56]
1889	0.10	[0.50]	1.46	0.12	0.30	0.00	0.00	0.00	0.00	[0.03]	[0.35]	1.20	[4.06]
1890	4.57	0.30	0.00	[0.17]	0.00	0.00	......	......	......	......	......	......	....
Means	1.19	0.50	0.52	0.17	0.12	0.10	0.03	0.00	0.02	0.03	0.35	0.61	3.64

Monthly and annual precipitation at stations in California—Continued.

BOCA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	3.85	4.82	0.81	0.55	[0.14]	0.12	0.00	0.00	[0.52]	0.04	1.10	....
1871	2.50	2.32	1.60	0.45	0.00	0.10	2.00	0.00	0.00	0.00	0.60	7.30	16.87
1872	3.00	0.90	0.10	1.50	0.10	0.00	0.00	0.00	0.00	0.00	0.20	2.60	8.40
1873	1.80	4.10	0.10	0.10	0.75	0.00	0.00	0.00	0.00	0.00	0.00	4.30	11.65
1874	4.70	2.40	6.20	0.80	0.60	0.00	0.60	0.00	0.10	2.15	3.70	0.60	21.85
1875	6.30	0.00	0.65	0.60	0.00	0.40	T	0.00	0.00	T	[1.06]	1.65	[10.66]
1876	8.10	3.60	4.72	0.70	0.10	0.00	0.22	0.01	0.01	0.25	0.02	0.00	17.73
1877	5.22	0.00	0.46	0.95	0.36	0.10	0.00	[0.00]	0.00	0.00	1.50	0.30	[8.89]
1878	3.94	6.74	0.86	1.30	0.00	0.13	0.08	0.00	0.17	0.99	1.60	0.00	15.81
1879	5.47	2.92	4.80	2.08	0.45	0.00	0.00	0.00	0.00	0.20	0.98	4.18	21.08
1880	0.00	3.00	2.90	6.95	0.75	0.00	0.00	0.00	0.00	0.00	0.00	[3.19]	[16.79]
1881	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	[0.00]	0.10	1.20	1.00	[2.42]
1882	3.90	3.60	10.20	1.00	0.00	0.00	0.00	0.00	0.00	0.80	0.90	0.60	21.00
1883	1.15	2.20	1.70	0.90	1.80	0.00	0.00	0.00	[0.00]	2.45	0.50	0.60	[11.30]
1884	4.60	6.30	5.10	1.90	0.30	1.40	0.00	0.00	T	0.80	0.00	8.20	28.60
1885	1.00	0.10	0.10	1.50	0.00	0.30	0.00	0.00	0.00	0.00	2.40	2.98	8.38
1886	8.35	0.85	4.40	1.30	0.50	0.00	[0.00]	0.00	0.10	0.70	0.70	0.70	[17.60]
1887	2.40	12.70	0.00	1.80	T	[0.00]	[0.00]	T	[0.00]	0.00	0.30	[3.19]	[20.39]
1888	3.75	1.00	2.40	0.10	0.51	0.10	0.15	0.30	0.12	0.00	0.95	1.45	11.23
1889	[4.25]	[3.10]	1.15	0.10	3.90	0.00	0.00	0.00	[0.00]	1.50	4.55	19.85	[38.40]
1890	14.60	5.40	5.45	[1.28]	0.70	[0.00]	......	......	......	......	......	......	....
Means	4.25	3.10	2.61	1.28	0.54	0.14	0.18	0.02	0.03	0.52	1.06	3.19	16.92

BORDEN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	0.00	0.50	0.00	0.00	0.00	0.00	0.00	[1.37]	....
1876	1.52	1.63	1.48	0.23	0.00	0.00	0.22	0.00	0.00	0.75	0.06	0.00	5.89
1877	0.89	0.41	0.73	0.00	0.46	0.00	0.00	0.00	0.00	0.01	1.65	1.12	5.30
1878	2.96	3.40	2.26	1.22	T	0.00	0.00	0.00	0.00	0.43	0.40	0.21	10.88
1879	0.59	1.20	1.03	0.94	0.94	0.25	T	0.00	0.00	0.38	0.54	2.18	8.05
1880	0.22	0.54	0.26	3.20	0.14	0.00	0.00	0.00	0.00	0.11	1.00	3.63	11.10
1881	2.94	0.92	0.98	0.94	T	0.16	T	T	0.05	0.34	0.31	0.32	6.96
1882	0.68	1.25	1.40	1.18	0.31	0.00	0.00	0.00	0.00	0.92	1.03	0.07	6.84
1883	0.92	0.32	1.79	0.74	1.47	0.00	0.00	0.00	0.00	0.62	0.20	0.31	6.37
1884	1.99	4.48	3.29	2.47	1.77	1.37	0.00	0.00	0.00	0.16	0.00	4.74	20.27
1885	0.60	0.00	0.78	0.75	0.00	0.00	0.00	0.00	0.00	0.00	8.69	0.93	11.75
1886	3.98	0.08	1.66	2.93	0.00	0.00	0.00	0.00	0.00	0.38	0.65	0.57	10.25
1887	0.25	2.24	0.30	2.37	0.00	0.00	0.00	0.00	0.46	0.05	0.28	0.78	6.73
1888	0.93	0.17	1.98	0.11	0.47	0.00	T	0.00	[0.00]	[0.54]	[1.18]	1.21	[6.59]
1889	0.15	0.44	0.79	0.77	0.94	0.00	0.00	0.00	0.00	3.42	1.69	3.05	12.25
1890	[1.33]	0.79	1.15	0.26	0.51	0.00	......	......	......	......	......	......	....
Means	1.33	1.32	1.39	1.21	0.44	0.14	0.01	T	0.04	0.54	1.18	1.37	8.97

BOULDER CREEK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	0.51	0.00	11.07	9.69	....
1889	1.24	1.80	19.58	0.39	4.78	0.00	0.00	0.00	0.00	19.68	9.56	38.73	95.96
1890	29.40	10.62	11.77	2.29	1.60	0.00	......	......	......	......	......	......	....
Means	15.32	6.21	15.68	1.34	3.19	0.00	0.00	0.00	0.26	9.84	10.32	24.31	86.47

BOWMAN DAM, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	0.00	0.98	7.88	38.20	....
1872	12.98	27.08	7.52	4.57	1.09	1.04	0.88	0.00	0.25	0.73	5.43	17.41	78.98
1873	5.73	16.17	3.82	3.20	2.65	0.00	0.06	0.00	0.00	1.24	4.37	23.47	60.71
1874	21.53	9.98	17.73	5.47	3.93	0.45	0.00	0.08	0.00	4.54	15.35	1.58	80.64
1875	16.91	0.25	5.18	0.83	2.85	2.38	0.25	0.00	0.00	3.09	23.43	10.77	65.94
1876	17.62	11.70	18.01	5.92	0.99	0.36	1.28	0.00	0.41	10.76	0.53	0.00	67.58
1877	14.33	3.18	7.49	3.17	3.33	1.17	0.00	0.00	0.00	1.52	8.26	1.71	44.16
1878	17.00	21.21	10.07	2.57	2.06	0.10	0.09	0.13	0.00	2.83	5.36	1.30	62.72
1879	14.50	14.28	20.97	9.57	3.93	0.71	0.05	0.10	0.00	3.41	9.62	15.00	92.14

Monthly and annual precipitation at stations in California—Continued.

BOWMAN DAM, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	9.27	8.17	9.51	31.72	8.90	0.00	0.00	0.00	0.00	0.00	0.65	25.05	93.27
1881	27.82	15.08	7.29	4.44	1.22	0.00	0.00	0.00	2.33	6.09	4.25	10.78	79.30
1882	11.46	7.47	15.17	7.96	1.16	0.00	0.00	0.00	2.94	11.47	6.51	4.32	68.46
1883	5.06	5.28	12.79	5.15	0.00	0.00	0.00	0.00	2.45	5.03	2.46	5.20	43.42
1884	13.50	19.45	18.02	12.44	2.01	3.53	0.00	0.00	1.08	3.04	0.00	46.57	119.64
1885	4.49	3.74	0.80	6.41	1.57	2.64	0.00	0.00	1.26	0.00	24.96	8.66	54.53
1886	17.84	2.99	7.24	13.22	3.20	0.00	0.00	0.00	0.00	2.25	1.76	6.95	55.45
1887	7.46	21.60	2.27	5.81	1.93	0.76	0.00	0.00	0.00	0.00	1.25	8.97	50.05
Means	13.59	11.73	10.24	7.65	2.55	0.82	0.16	0.02	0.63	3.35	7.18	13.20	71.21

BRAGG, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	......	......	......	......	......	......	......	......	......	......	......	11.15	....
1861	5.60	11.97	6.77	3.92	1.90	0.25	0.00	0.00	[0.00]	0.25	......	......	....
1862	15.75	19.50	7.68	2.49	3.20	0.85	0.00	0.00	T	0.68	0.10	4.35	54.60
1863	......	......	......	......	......	T	T	0.00	T	0.00	4.15	5.25	....
1864	5.00	1.00	2.50	2.50	T	[0.00]	[0.00]	T	T	......	......	......	....
Means	8.78	10.82	5.65	2.97	1.70	0.37	T	T	T	0.31	2.12	6.92	39.64

BRENTWOOD, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	......	......	......	......	......	......	......	......	......	0.87	1.58	....
1880	0.92	0.86	0.94	4.18	0.18	0.00	0.00	0.00	0.00	0.00	0.30	5.18	12.56
1881	2.75	1.42	0.89	1.95	0.00	0.00	0.00	0.00	0.00	0.07	0.81	1.79	9.68
1882	0.71	0.82	2.18	0.49	0.00	0.00	0.00	0.00	0.02	0.64	1.57	0.28	6.71
1883	2.82	0.26	1.87	0.39	1.97	0.00	0.00	0.00	0.03	0.80	0.53	0.70	9.37
1884	2.62	3.84	4.18	2.22	T	1.51	0.00	0.00	0.00	1.20	0.00	2.69	18.26
1885	1.19	0.11	0.72	0.51	0.00	0.35	[0.00]	0.00	0.00	0.00	6.40	2.58	[11.86]
1886	4.16	0.03	1.51	2.08	0.00	0.00	0.00	0.00	0.00	0.15	0.24	0.87	9.04
1887	0.38	5.05	0.61	1.61	0.00	0.00	0.00	0.00	0.50	0.00	0.40	2.62	11.17
1888	4.24	0.40	2.28	0.02	0.59	0.00	0.00	[0.00]	0.82	0.00	3.71	1.72	[13.78]
1889	0.48	0.72	4.57	0.62	0.87	0.13	0.00	0.00	0.00	4.66	3.44	9.61	25.10
1890	5.29	3.35	2.32	0.92	0.37	......	......	......	......	......	......	......	....
Means	2.32	1.53	2.01	1.36	0.36	0.20	0.00	0.00	0.14	0.75	1.66	2.69	13.02

BRIGHTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	T	0.00	0.00	0.48	1.00	1.16	....
1878	8.38	6.49	3.23	0.90	0.13	0.00	0.00	0.00	0.17	0.22	0.43	0.49	20.44
1879	2.74	3.64	3.46	2.60	0.90	0.11	0.00	0.00	0.00	0.90	1.80	2.09	18.24
1880	1.52	1.77	1.94	9.55	1.20	0.00	0.00	0.00	0.00	0.00	0.00	4.74	20.72
1881	2.16	4.76	1.35	0.50	0.00	0.12	0.00	0.00	0.00	0.45	1.09	1.38	11.81
1882	1.17	1.42	2.20	1.20	0.00	0.31	0.00	0.00	0.28	1.80	2.92	0.65	11.95
1883	2.41	0.40	3.42	1.23	2.99	0.00	0.00	0.00	0.66	0.80	0.39	0.44	12.74
1884	2.98	3.68	5.32	3.54	0.25	1.55	0.00	0.00	0.23	1.42	0.00	6.17	25.14
1885	1.61	0.44	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	7.76	2.34	12.69
1886	5.49	0.07	3.05	4.16	0.10	0.00	0.00	0.00	0.00	0.85	0.12	1.47	15.31
1887	0.80	4.87	1.08	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.57	2.70	12.00
1888	4.67	0.62	2.86	0.30	0.59	[0.00]	0.00	0.00	0.52	0.00	3.94	8.29	[21.79]
1889	0.00	0.46	5.46	0.11	2.85	0.22	0.00	0.00	0.00	6.04	3.60	6.19	24.93
1890	5.00	2.06	2.70	1.45	1.40	0.00	......	......	......	......	......	......	....
Means	2.99	2.36	2.77	2.16	0.80	0.19	T	0.00	0.14	1.00	1.82	2.93	17.16

BUCHANAN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	......	......	0.00	0.00	0.00	0.00	....
1879	1.24	1.75	2.94	2.43	0.34	0.00	0.00	0.00	0.00	1.19	1.72	3.66	15.27
1880	1.53	4.25	1.49	8.93	0.00	0.00	0.00	0.00	0.00	0.00	0.66	8.08	24.94
1881	6.11	3.23	2.15	1.89	0.04	0.55	0.00	0.00	3.57	0.65	0.86	1.58	20.63
1882	1.52	3.27	5.41	4.07	0.00	0.00	0.00	0.00	......	......	......	......	....
Means	2.60	3.12	3.00	4.33	0.09	0.14	0.00	0.00	0.89	0.46	0.81	3.33	18.77

Monthly and annual precipitation at stations in California—Continued.

BYRON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	......	......	......	......	......	......	......	......	......	0.95	1.28	....
1880	0.92	1.02	0.79	5.13	0.18	0.00	0.00	0.00	0.00	0.00	0.53	7.56	16.13
1881	3.46	1.68	0.91	1.91	0.00	0.00	0.00	0.00	0.00	0.04	1.00	1.80	10.80
1882	1.15	1.02	3.11	0.72	0.00	0.00	0.00	0.00	0.02	0.97	1.69	0.32	9.00
1883	3.01	0.25	1.91	0.17	2.58	0.00	0.00	0.00	0.00	0.86	0.53	0.71	9.82
1884	2.41	4.15	5.61	2.50	0.00	1.54	0.00	0.00	0.00	1.23	0.00	3.33	20.77
1885	1.23	0.18	0.35	1.02	0.00	0.00	0.00	0.00	0.00	0.00	6.70	2.04	11.52
1886	4.09	0.00	1.79	2.23	0.00	0.00	0.00	0.00	0.00	0.89	0.00	0.95	9.95
1887	0.48	4.43	0.19	1.21	0.00	0.00	0.00	0.00	0.00	T	0.42	2.90	9.63
1888	2.67	1.25	1.77	0.00	0.75	0.00	0.00	0.00	0.59	0.00	4.49	1.81	13.33
1889	0.71	0.72	4.24	0.49	0.98	0.12	0.00	0.00	0.00	4.52	2.86	8.33	22.97
1890	6.44	2.35	2.16	0.38	......	0.00	......	......	......	......	......	......	....
Means	2.42	1.55	2.08	1.43	0.43	0.15	0.00	0.00	0.06	0.85	1.74	2.82	13.53

CABAZON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	......	......	......	......	......	0.00	0.00	0.00	0.00	2.05	....
1885	0.15	0.12	0.00	1.20	0.10	0.00	0.00	0.00	0.00	......	......	......	....
Means	0.15	0.12	0.00	1.20	0.10	0.00	0.00	0.00	0.00	0.00	0.00	2.05	3.62

CACTUS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	0.00	0.00	0.00	0.00	0.25	0.10	0.70	0.00	2.02	....
1890	0.00	0.55	......	......	......	......	......	......	......	......	......	......	....
Means	0.00	0.55	......	0.00	0.00	0.00	0.00	0.25	0.10	0.70	0.00	2.02	....

CADY, CAMP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	......	......	0 00	......	0.00	0.00	0.69	1.00	0.00	......	0.20	0.30	....
1869	0.55	1.00	1.00	0.50	......	......	0.00	0.30	0.00	0.10	0.60	0.00	....
1870	0.00	0.00	0.12	0.00	?0.16	0.00	......	0.58	0.00	0.50	0.00	0.18	....
1871	0.00	......	......	......	......	......	......	......	......	......	......	......	....
Means	0.18	0.50	0.37	0.25	0.08	0.00	0.34	0.63	0.00	0.30	0.27	0.16	30.8

CALAVERAS VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	......	......	0.25	0.72	0.37	0.43	....
1879	5.09	3.04	5.67	3.54	2.48	0.15	0.00	0.00	0.00	1.35	2.99	5.33	29.64
1880	3.41	2.35	2.60	7.74	1.07	0.00	0.00	0.00	......	......	......	......	....
1882	......	......	......	......	......	......	......	......	0.46	1.88	2.51	2.49	....
1883	1.17	1.94	4.33	3.16	3.46	0.00	0.00	0.00	0.33	1.73	0.84	1.13	18.09
1884	5.51	9.81	9.30	6.87	0.39	1.45	0.00	0.00	......	......	......	......	....
Means	3.79	4.28	5.47	5.33	1.85	0.40	0.00	0.00	0.26	1.42	1.68	2.35	26.83

CALIENTE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	2.02	1.66	0.53	T	0.00	0.00	T	0.00	0.52	T	0.00	....
1877	1.08	0.47	1.08	1.27	[0.52]	0.00	0.00	0 00	0.00	0.00	0.84	2.31	....
1878	3.81	4.47	2.69	3.20	0.03	0.00	0.00	0.00	0.00	0.42	0.10	0.10	14.82
1879	0.20	0.34	0.33	1.43	0.20	0.04	0.00	0.00	0.00	1.08	1.77	3.46	8.85
1880	2.37	1.51	1.09	3.53	0.23	0.00	0.00	0.09	0.00	0.00	0.35	3.56	12.64
1881	1.61	1.54	1.91	0.64	0.23	0.00	0.00	0.00	0.13	0.81	0.30	0.51	7.68
1882	1.51	3.30	0.73	1.59	0.69	0.56	0.00	0.00	0.00	1.01	0.69	0.37	10.45
1883	0.04	1.76	0.82	2.42	1.07	0.00	0.00	0.00	0.08	0.76	0.05	[1.81]	[8.81]
1884	2.00	4.98	5.00	2.90	1.10	1.28	0.00	0.00	0.00	0.22	0.25	3.25	20.98

Monthly and annual precipitation at stations in California—Continued.

CALIENTE—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	0.25	0.00	0.45	3.00	1.05	0.00	0.05	0.00	0.00	0.05	3.88	1.33	10.06
1886	1.59	0.66	2.62	2.65	0.00	0.00	T	0.00	0.00	T	1.45	1.33	10.30
1887	0.38	2.79	0.07	2.66	0.21	0.00	0.00	0.00	0.00	0.63	0.05	1.43	8.22
1888	0.87	1.14	1.50	0.00	0.81	0.00	0.00	0.00	0.00	0.00	6.14	2.18	12.64
1889	0.59	0.20	3.15	0.60	0.00	0.00	0.00	0.00	0.00	1.35	1.05	3.65	10.59
1890	[1.25]	1.15	1.10	0.00	1.62	0.00	......	......	......	......	......	......	......
Means	1.25	1.76	1.61	1.76	0.52	0.13	T	T	0.02	0.49	1.21	1.81	10.56

CALISTOGA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	0.00	......	0.00	0.00	0.00	0.00	0.00	......	0.00	......	......	......	......
1873	0.20	4.43	1.28	1.43	0.00	0.00	0.00	0.00	0.00	0.63	2.75	10.19	20.91
1874	8.55	2.57	3.48	1.55	1.10	0.00	0.00	0.00	0.00	4.01	7.98	0.46	29.70
1875	7.89	0.56	2.18	0.00	0.00	1.52	0.00	0.00	0.00	0.45	6.79	4.03	23.42
1876	8.53	9.08	8.73	1.67	0.20	0.00	0.00	0.00	0.36	9.05	0.48	0.00	38.10
1877	6.55	2.49	1.64	0.65	0.50	0.28	0.20	0.00	0.00	1.49	2.14	3.02	18.96
1878	20.64	16.46	4.80	0.85	0.80	0.00	0.00	T	0.49	1.56	1.30	1.57	48.47
1879	4.40	6.72	15.70	2.37	2.21	0.00	0.00	0.00	0.00	0.46	5.33	7.99	45.18
1880	3.94	1.88	1.64	15.31	1.55	0.00	0.00	0.00	0.00	0.00	0.00	15.83	40.15
1881	15.58	4.77	1.39	1.89	0.25	0.77	0.00	0.00	0.48	2.19	0.00	5.18	32.50
1882	3.81	5.53	3.84	1.65	0.17	0.00	0.00	0.00	0.71	3.57	4.70	1.42	25.40
1883	1.30	1.28	5.36	2.93	3.71	0.00	0.00	0.00	1.14	1.69	0.24	1.32	18.97
1884	6.57	4.42	9.78	5.98	0.42	2.06	0.00	0.00	0.19	1.83	0.05	15.08	46.38
1885	2.05	1.59	0.71	0.95	0.00	0.00	0.00	0.00	0.12	0.78	15.67	5.36	27.23
1886	9.39	T	2.23	7.12	1.05	0.00	0.00	0.00	0.00	1.25	0.00	3.95	24.99
1887	2.22	11.18	1.58	2.82	T	0.09	0.00	0.00	0.18	0.00	1.50	4.82	24.30
1888	7.87	2.87	5.64	0.26	0.20	1.16	0.00	[0.00]	0.89	0.00	6.14	6.91	[31.94]
1889	0.96	0.72	10.87	1.23	3.91	0.00	0.00	0.00	0.00	9.85	4.10	17.67	49.31
1890	18.00	4.78	9.16	2.25	[0.89]	0.00	......	......	......	......	......	......	......
Means	6.76	4.52	4.74	2.68	0.89	0.30	0.01	T	0.25	2.28	3.48	6.16	32.07

CAMPO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	2.29	1.08	0.91	0.00	0.50	0.00	0.00	0.35	[1.24]	2.44	......
1878	1.79	5.45	1.84	5.75	0.41	0.00	2.32	0.01	0.00	0.31	0.55	1.29	19.72
1879	2.18	1.32	0.60	2.01	0.00	0.00	0.00	0.00	0.00	0.00	3.00	2.23	11.34
1880	3.00	2.15	3.56	4.00	0.00	0.00	0.12	0.41	0.01	0.68	0 85	4.85	19.63
1881	1.74	0.53	5.00	1.52	0.12	0.04	0.07	1.27	0.02	0.73	0.11	0.24	11.39
1882	3.10	4.57	1.01	1.10	0.18	0.26	[0.60]	0.53	0.02	......	......	......	......
1889	......	4.65	4.00	[2.21]	0.45	0.10	[0.60]	2.50	0.50	1.10	1.67	9.34	......
1890	2.20	7.55	1.69	0.00	0.90	......	......	......	......	......	......	......	......
Means	2.34	3.75	2.50	2.21	0.37	0.06	0.60	0.67	0.08	0.53	1.24	3.40	17.75

CANTELOPE VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Averages for 8 years	5.16	2.71	3.07	2.19	0.82	0.21	0.00	0.00	0.25	0.54	3.02	4.92	22.92

CAPE MENDOCINO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	......	......	......	......	......	......	......	0.00	0.21	2.59	2.42	[2.76]	......
1883	2.91	2.86	1.68	2.90	1.67	0.02	0.00	0.00	1.40	2.12	1.36	2.25	19.17
1884	1.27	1.95	3.52	3.36	0.33	0.92	0.45	0.33	1.18	0.52	0.40	2.58	16.81
1885	1.91	1.37	0.34	0.92	0.62	1.32	0.32	0.82	1.59	1.11	7.34	2.71	20.37
1886	4.61	1.37	2.08	5.43	0.35	0.04	0.46	0.26	0.15	3.04	1.07	3.49	22.35
Means	2.68	1.89	1.90	3.15	0.74	0.58	0.31	0.28	0.91	1.88	2.52	2.76	19.60

Monthly and annual precipitation at stations in California—**Continued.**

CASTROVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.69	1.59	4.18	1.00	1.20	0.05	0.00	0.00	0.00	4.31	2.03	11.81	26.86
1890	7.87	3.33	1.89	0.57	0.67	0.00	......	......	......	......	......	......	....
Means	4.28	2.46	3.04	0.78	0.94	0.02	0.00	0.00	0.00	4.31	2.03	11.81	29.67

CENTRAL POINT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	......	......	......	......	......	......	......	0.00	0.14	0.57	1.14	....
1880	0.78	1.99	1.01	2.96	0.46	0.00	0.00	0.00	0.00	0.05	0.72	5.15	13.12
1881	1.24	1.29	1.01	0.68	0.00	0.00	0.00	0.00	0.00	0.05	0.41	0.29	4.97
1882	0.80	0.50	2.52	0.40	0.00	0.00	0.00	0.00	0.54	0.60	0.50	0.85	6.71
1883	1.58	0.43	2.24	0.42	1.82	0.00	0.00	0.00	0.05	0.44	0.05	0.50	7.53
1884	1.33	3.10	3.56	1.90	0.93	1.40	0.00	0.00	0.00	0.95	0.14	2.52	15.83
1885	1.29	0.00	0.67	0.76	0.00	0.01	0.00	0.00	0.00	0.00	7.04	0.85	10.62
1886	3.61	0.07	1.93	1.91	0.06	0.00	......	......	......	......	......	......	....
Means	1.52	1.05	1.85	1.29	0.47	0.20	0.00	0.00	0.08	0.32	1.35	1.61	9.74

CENTREVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	5.63	0.73	1.67	4.19	0.25	0.01	T	0.00	0.00	0.64	1.29	1.14	15.55
1887	1.07	7.62	1.01	1.87	0.14	0.07	0.01	0.00	0.51	T	0.84	3.25	16.39
1888	3.99	1.80	3.07	0.15	0.78	0.40	0.00	T	0.39	0.07	3.87	2.53	17.05
1889	0.55	0.42	5.59	0.95	1.59	0.01	0.00	0.00	0.00	4.30	3.44	12.13	28.98
1890	7.18	3.63	3.03	1.12	1.08	0.00	......	......	......	......	......	......	....
Means	3.68	2.84	2.87	1.66	0.77	0.10	T	T	0.22	1.25	2.36	4.76	20.51

CHEROKEE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	0.00	......	......	10.09	....
1872	10.58	12.25	2.33	3.11	0.45	0.56	0.00	0.00	0.00	0.00	3.89	8.46	41.63
1873	3.21	9.18	0.59	2.14	0.88	0.00	0.00	0.00	0.00	0.94	5.02	16.48	38.44
1874	9.79	6.74	7.36	3.57	1.58	0.11	0.00	0.00	0.00	4.65	14.28	0.43	48.51
1875	10.84	0.38	1.90	1.16	0.66	1.01	0.00	0.00	0.00	0.24	10.41	6.96	33.59
1876	8.48	11.95	13.36	2.66	0.23	0.00	1.19	0.00	0.25	10.19	......	......	....
1877	7.70	3.10	3.84	0.75	1.51	1.28	......	......	0.00	1.72	4.32	3.60	....
1878	19.63	20.00	8.87	3.53	1.14	......	......	0.45	1.52	2.09	2.39	0.69	....
1879	8.26	9.09	18.23	5.66	3.66	0.35	0.00	0.28	2.60	4.20	12.64	3.88	68.85
1880	3.16	2.20	18.07	2.79	0.00	0.00	0.00	0.00	0.00	0.00	0.42	16.84	43.48
1881	14.95	7.31	2.34	1.49	1.16	0.00	0.00	0.00	0.90	2.92	0.39	6.79	38.25
1882	4.04	8.32	6.47	4.59	0.00	0.00	0.00	0.00	1.31	3.23	4.65	3.72	36.33
1883	1.42	1.31	8.10	3.12	6.98	0.00	0.00	0.00	0.00	5.21	1.06	1.17	28.37
1884	6.69	6.16	11.89	9.27	0.80	3.87	0.00	0.00	......	......	......	......	....
Means	8.37	7.54	7.95	3.37	1.47	0.60	0.11	0.06	0.51	2.95	5.40	6.59	44.92

CHEROKEE RESERVOIR, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	0.00	0.00	5.80	18.25	....
1874	13.07	8.15	10.78	4.83	1.03	0.00	0.00	0.00	0.00	5.99	16.99	1.15	61.99
1875	12.47	0.61	3.76	0.10	1.10	2.00	0.00	0.00	0.00	1.00	15.20	11.26	47.50
1876	11.03	13.08	15.94	3.48	1.00	0.00	1.00	0.73	1.28	12.90	0.00	0.00	60.44
1877	11.10	3.62	6.62	1.62	2.53	1.87	0.80	0.00	0.00	2.22	5.70	3.98	40.06
1878	23.54	24.00	12.01	4.98	1.67	0.00	0.00	0.68	1.98	2.40	3.12	0.00	74.38
1879	8.89	10.28	21.06	7.68	5.06	0.50	0.00	0.00	......	......	......	......	....
Means	13.35	9.96	11.70	3.78	2.06	0.73	0.30	0.24	0.54	4.08	7.80	5.77	60.31

Monthly and annual precipitation at stations in California—Continued.

CHICO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	......	0.00	0.00	*a*1.65	2.76	......
1871	2.36	3.33	1.17	2.13	1.12	0.00	0.00	0.00	0.00	0.09	2.07	10.11	22.58
1872	7.94	8.12	1.02	1.64	0.00	0.33	0.00	0.05	0.00	0.20	2.11	5.07	26.43
1873	2.51	2.04	1.50	1.08	0.08	0.00	0.00	0.00	0.00	0.65	2.16	9.36	19.38
1874	5.16	2.94	2.21	1.90	0.92	0.00	0.00	0.00	0.00	4.60	5.96	0.65	24.34
1875	4.77	0.38	0.86	T	0.18	1.36	0.00	0.00	0.00	0.57	5.08	2.21	15.41
1876	4.76	7.49	4.59	0.00	T	T	0.50	0.00	0.14	4.03	0.35	0.00	21.86
1877	5.70	2.04	2.64	0.31	0.33	0.28	0.00	0.00	0.00	1.44	2.49	2.31	17.54
1878	12.04	10.01	4.49	1.52	0.42	0.00	0.00	T	0.54	0.96	1.11	0.27	31.36
1879	3.70	4.93	3.62	2.17	2.05	0.12	T	0.20	0.00	0.42	3.08	4.76	25.05
1880	1.14	0.95	0.47	5.78	[0.84]	0.00	0.00	0.00	0.00	0.00	0.00	8.29	[17.47]
1881	4.36	3.94	1.03	0.00	0.00	0.00	0.00	0.00	1.13	0.00	1.55	2.55	14.56
1882	1.61	4.54	4.54	1.01	0.00	0.00	0.00	0.00	1.13	1.76	2.26	0.84	17.69
1883	0.67	0.27	3.61	1.65	5.01	0.00	0.00	0.00	0.65	3.78	0.86	0.50	17.00
1884	2.48	2.16	5.57	2.93	0.40	2.11	0.00	0.00	0.86	1.40	0.00	5.28	23.19
1885	2.26	1.01	0.30	0.75	0.53	0.58	0.00	0.00	0.30	0.27	8.99	5.42	20.41
1886	4.44	0.75	2.29	4.17	0.36	0.00	0.00	0.00	0.00	0.97	0.15	2.78	15.91
1887	0.68	6.53	1.38	2.31	0.00	0.96	0.00	0.00	0.00	0.00	1.05	2.53	15.44
1888	4.95	1.15	1.94	0.15	[0.84]	1.20	0.00	[0.01]	0.68	0.00	4.49	5.35	[20.76]
1889	0.34	0.50	5.68	0.97	1.78	0.42	0.00	0.00	0.00	7.80	2.59	9.74	29.82
1890	5.26	2.51	5.65	1.97	1.87	0.00	......	......	......	......	......	......	......
Means	3.86	3.29	2.73	1.62	0.84	0.37	0.03	0.01	0.27	1.45	2.40	4.04	20.91

CHRISTMAS PRAIRIE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	......	......	......	1.56	0.24	0.01	3.23	2.17	1.37	26.44	......
1885	8.79	8.39	1.45	3.30	1.34	1.57	0.00	0.00	0.93	1.65	31.99	18.85	78.26
1886	16.59	6.30	6.51	12.97	2.83	0.00	1.17	0.00	0.00	4.72	3.93	13.73	68.75
1887	15.97	20.92	5.00	......	......	......	......	......	......	......	......	......	......
Means	13 78	11.87	4.32	8.14	2.08	1.04	0.47	T	1.39	2.85	12.43	19.67	78.04

CHUALAR, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	1.13	1.99	3.77	0.34	0.20	0.00	0.00	0.00	0.00	1.25	0.61	0.47	9.76
1883	1.82	1.14	2.66	0.80	1.31	0.00	0.00	0.00	0.00	1.22	0.18	0.73	9.86
1884	1.72	3.95	5.17	2.73	0.94	1.78	0.00	0.00	0.07	2.08	0.24	2.79	21.47
1885	0.54	0.00	0.32	[1.44]	0.06	0.00	0.07	0.00	0.05	0.00	6.90	[1.10]	......
1886	2.80	1.10	1.50	2.20	0.07	0.00	0.00	0.00	0.00	0.15	0.70	0.40	8.92
1887	[1.60]	2.50	0.60	1.15	0.03	......	......	......	......	......	......	......	......
Means	2.70	2.42	2.13	1.42	0.36	0.18	0.01	0.00	0.03	0.64	1.47	1.54	12.88

CISCO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	13.46	3.70	0.65	0.40	......	......	0.00	0.00	1.20	2.80	4.40	......
1871	6.40	8.40	2.40	3.05	4.95	[0.76]	0.00	0.00	0.40	0.20	6.20	24.89	......
1872	6.50	12.55	3.98	6.05	1.14	1.03	0.53	T	0.00	0.60	2.65	9.51	44.54
1873	5.60	14.00	1.60	1.60	1.50	0.00	0.00	0.00	0.00	0.55	1.35	14.40	40.60
1874	7.70	7.00	14.00	4.10	3.10	0.00	0.00	0.00	0.50	2.70	7.07	0.50	46.67
1875	8.40	0.45	4.80	0.90	0.82	2.05	0.00	0.00	0.00	1.75	8.55	5.30	33.02
1876	18.50	22.20	17.20	0.70	1.20	T	0.00	0.00	0.00	[2.12]	4.20	0.00	......
1877	7.20	0.30	0.63	2.87	3.71	0.80	0.00	0.00	0.00	0.60	4.52	1.30	21.83
1878	9.60	11.85	2.00	2.00	4.00	0.00	0.00	0.00	0.20	1.45	1.85	1.25	34.20
1879	9.30	10.34	16.42	5.50	2.90	0.30	0.03	0.04	0.00	2.10	8.17	8.92	64.02
1880	4.80	7.10	7.60	11.90	3.90	0.03	0.00	0.00	0.01	0.82	0.60	16.33	53.09
1881	23.46	12.91	6.10	4.81	0.00	3.30	0.00	0.00	2.16	2.93	3.60	8.76	78.03
1882	11.71	8.50	25.30	5.60	0.91	0 48	0.00	0.00	0.83	8 28	3.75	2.88	68.24
1883	0.10	4.85	9.25	3.50	6.96	0.00	0.00	0.00	0.00	1.50	2.20	2.70	31.86
1884	8.40	12.00	14.65	10.10	0.00	3.54	0.00	0.00	1.40	2.32	0.00	25.05	77.46
1885	2.30	1.28	2.20	3.95	0.30	0.95	0.00	0.00	0.50	0.00	17.05	4.87	33.40
1886	14.75	2.40	7.40	7.50	1.45	0.00	0.00	0.00	0.00	1.45	1.05	6.10	42.10
1887	4.90	22.85	0.80	3.95	0.40	0.00	T	0.00	0.15	0.00	1.60	8.80	43.45
1888	9.75	2.72	6.10	2.20	1.50	1.20	0.00	[0.00]	0.68	0.15	[4.57]	19.88	[38.75]
1889	1.40	[9.00]	2.70	1.65	8.10	0.47	0.00	0.00	0.00	11.72	9.54	25.57	[70.15]
1890	22.90	14.90	8.70	1.50	2.50	0.30	......	......	......	......	......	......	......
Means	9.72	9.00	7.50	4.00	2.37	0.76	0.03	T	0.34	2.12	4.57	9.07	49.48

***Monthly and annual precipitation at stations in California*—Continued.**

CLOVERDALE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	9.15	4.00	3.19	T	......	......	......	......	......	......	......	......	......
1887	3.00	11.56	1.83	3.75	0.33	0.09	0.00	T	0.43	0.00	1.99	5.18	28.16
1888	15.30	2.37	......	......	......	......	......	......	......	......	......	......	......
Means	9.15	5.98	2.51	1.88	0.33	0.09	0.00	T	0.43	0.00	1.99	5.18	27.54

COLEGROVE (CAHUENGA VALLEY), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	2.00	4.25	2.25	0.20	3.12	T	0.00	0.00	0.00	1.18	0.00	2.01	15.01
1884	2.72	10.24	9.43	3.35	0.69	0.81	0.00	T	0.10	0.51	1.17	3.86	32.88
1885	0.84	0.00	0.12	2.19	0.10	T	0.00	T	0.00	0.06	7.45	1.65	12.41
1886	7.65	1.21	2.61	3.00	0.00	0.00	0.10	0.16	0.00	0.05	0.72	0.20	15.70
1887	0.26	8.72	0.28	2.46	0.23	0.08	0.10	0.00	0.12	0.13	1.08	3.89	17.35
1888	7.55	1.13	3.67	[1.62]	0.08	0.00	0.00	0.00	0.00	0.71	4.38	6.47	25.61
1889	0.10	1.10	5.97	0.26	0.69	0.00	0.00	0.50	T	7.76	1.62	15.40	33.40
1890	6.75	1.33	0.68	0.21	0.08	......	......	......	......	......	......	......	......
Means	3.48	3.50	3.13	1.66	0.62	0.13	0.03	0.09	0.03	1.50	2.35	4.78	21.30

COLES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	1.21	0.24	1.90	2.79	0.85	T	0.85	0.00	1.43	1.32	......
1889	......	0.15	2.20	0.96	2.74	0.10	......	......	......	......	......	......	......
Means	......	0.15	1.70	0.60	2.32	1.44	0.85	T	0.85	0.00	1.43	1.32	......

COLFAX, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	5.55	5.41	3.19	0.25	[0.00]	0.00	0.00	0.00	1.21	2.58	3.94	......
1871	7.24	4.85	4.30	4.03	2.55	0.13	0.00	0.00	0.00	0.00	4.25	9.80	37.15
1872	10.02	13.68	4.69	3.40	0.61	0.40	0.00	T	T	0.00	3.99	10.48	47.27
1873	2.90	11.12	1.24	1.81	2.04	0.00	T	0.00	0.00	0.00	2.27	18.84	40.22
1874	10.93	6.62	10.12	3.53	1.31	0.00	0.00	0.00	0.00	3.36	13.89	1.12	50.88
1875	12.32	0.19	3.23	0.20	1.90	0.00	0.00	0.00	0.00	0.95	14.84	7.10	40.73
1876	10.40	7.29	11.39	3.23	1.42	T	0.00	0.00	0.00	7.98	0.62	0.00	45.24
1877	9.29	1.76	4.36	1.36	1.67	0.57	0.00	T	0.00	0.95	3.38	1.76	25.10
1878	13.10	12.21	9.22	1.79	0.42	T	0.00	0.00	0.56	0.00	2.08	0.85	40.23
1879	8.73	8.87	14.62	6.57	2.91	0.27	0.00	0.00	0.00	2.94	4.68	9.16	58.75
1880	4.53	6.60	2.85	21.09	4.29	0.00	0.00	0.00	0.00	T	0.00	16.47	55.83
1881	15.59	9.30	3.83	1.53	T	1.31	0.00	0.00	1.63	1.38	3.40	8.01	45.98
1882	9.09	7.11	6.97	3.98	1.13	0.13	0.00	0.00	0.40	2.96	4.03	3.60	39.40
1883	1.68	3.23	7.98	2.93	5.92	0.00	0.00	0.00	1.08	2.97	1.34	2.32	29.45
1884	7.57	9.73	12.27	10.94	1.38	3.01	0.00	0.00	0.80	2.55	T	23.60	71.85
1885	2.85	1.66	0.68	2.29	0.00	1.18	0.00	0.00	0.62	0.00	15.48	6.77	31.53
1886	12.17	0.34	3.69	10.86	1.08	0.00	0.00	0.00	0.00	1.96	0.46	6.12	36.68
1887	2.99	9.24	1.51	4.92	0.72	0.00	0.00	0.00	0.68	0.84	1.61	6.00	28.51
1888	13.28	2.18	2.80	0.95	0.17	2.69	0.00	0.00	0.25	0.10	3.28	9.57	35.27
1889	0.50	0.90	13.90	3.00	9.14	0.25	0.00	0.00	0.00	9.95	9.60	21.85	69.09
1890	17.90	8.00	14.70	3.95	3.85	0.00	......	......	......	......	......	......	......
Means	8.65	6.21	6.80	4.55	2.04	0.50	T	T	0.30	2.00	4.59	8.37	44.01

COLLEGE CITY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	......	......	......	......	......	......	0.00	0.00	0.71	0.56	0.41	0.51	......
1884	3.61	2.21	5.46	2.48	0.17	2.04	0.00	0.00	0.36	1.02	0.00	5.14	22.49
1885	1.64	0.47	0.56	0.77	T	0.23	0.00	T	0.05	0.91	8.89	3.55	17.07
1886	1.64	0.04	......	......	......	......	......	......	......	......	......	......	......
1887	0.46	6.03	0.80	......	......	......	......	......	......	......	......	......	......
Means	1.84	2.19	2.27	1.62	0.08	1.14	0.00	T	0.37	0.83	3.10	3.07	16.51

***Monthly and annual precipitation at stations in California*—Continued.**

COLLEGEVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	0.08	0.75	0.72	......
1887	1.03	3.90	0.56	2.11	0.00	0.00	0.00	0.00	0.00	[0.00]	[1.49]	[1.50]	[10.59]
1888	3.65	0.26	2.74	0.00	......	......	......	......	......	......	......	......	......
Means	2.34	2.08	1.65	1.06	0.00	0.00	0.00	0.00	0.00	0.04	1.12	1.11	9.[illegible]0

COLTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	......	......	0.00	0.00	......
1877	1.64	T	1.72	1.00	1.58	0.00	0.00	0.00	0.00	0.07	0.35	1.93	8.29
1878	1.94	5.16	1.38	2.99	0.71	0.00	0.00	0.00	0.00	0.24	0.30	1.68	14.40
1879	1.79	0.74	0.03	1.75	0.10	0.08	0.00	0.00	0.00	0.13	1.15	2.49	8.26
1880	0.99	0.76	1.05	2.19	0.00	0.60	0.00	0.00	0.00	0.13	0.27	2.37	7.76
1881	0.74	0.90	1.39	0.28	0.00	0.00	0.00	0.00	0.00	0.28	0.38	0.00	3.97
1882	2.23	1.28	1.51	1.08	0.00	0.50	0.50	0.00	0.00	0.50	0.19	0.30	8.09
1883	0.52	1.72	1.00	0.45	0.75	0.00	0.00	0.00	0.00	0.60	0.00	2.23	7.27
1884	1.00	11.38	4.05	2.85	2.90	0.32	0.00	0.25	0.00	0.25	0.12	3.93	27.05
1885	1.00	0.00	0.00	2.08	0.22	0.00	0.00	0.00	0.00	0.00	1.92	0.52	5.74
1886	2.78	0.40	3.54	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00	8.02
1887	0.21	3.64	0.00	1.94	T	0.00	0.00	0.00	0.00	0.00	[0.70]	0.80	[7.29]
1888	[1.43]	[2.15]	3.68	0.43	0.00	0.00	0.00	[0.00]	0.00	0.00	2.37	3.26	[13.32]
1889	0.86	0.88	4.47	1.02	0.60	0.00	0.00	T	0.04	1.59	1.26	7.41	18.13
1890	2.94	1.15	0.50	0.00	0.00	0.00	......	......	......	......	......	......	......
Means	1.43	2.15	1.74	1.33	0.49	0.06	0.04	0.02	T	0.29	0.70	1.92	10.17

COLUSA RANCH, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	2.39	0.90	1.44	0.27	T	0.00	0.00	0.00	T	1.77	5.17	......
1872	3.59	4.69	0.79	0.36	T	0.39	0.00	T	0.00	0.11	0.00	4.61	14.54
1873	0.87	3.84	0.45	0.30	0.00	0.00	0.00	0.00	0.00	0.00	2.43	8.62	16.51
1874	3.50	1.94	1.32	0.81	0.20	0.00	0.00	0.00	0.00	3.31	4.06	0.31	15.45
1875	4.83	0.00	0.66	0.00	0.00	1.17	0.00	0.00	0.00	0.00	3.25	1.99	11.90
1876	3.70	5.50	4.06	0.85	0.00	0.00	0.54	0.00	0.00	4.72	0.00	0.00	19.37
1877	2.57	1.26	0.52	0.00	0.13	0.00	0.00	0.00	0.00	1.09	1.39	1.43	8.39
1878	13.07	11.38	3.10	0.68	0.87	0.00	0.00	0.33	0.00	0.45	1.28	0.13	31.29
1879	2.56	2.69	3.66	2.60	0.41	0.00	0.00	0.00	0.00	0.00	3.06	5.13	20.11
1880	1.25	1.20	1.22	6.31	1.04	0.00	0.00	0.00	0.00	0.00	0.00	9.63	20.65
1881	3.70	2.27	0.60	1.42	0.34	0.00	0.00	0.00	1.19	0.00	0.43	2.51	12.46
1882	1.51	2.56	2.50	1.27	0.04	0.65	0.00	0.00	0.23	1.19	1.73	0.69	12.37
1883	1.07	0.37	2.36	0.79	3.23	0.60	0.00	0.00	0.68	0.68	0.11	0.10	9.39
1884	4.82	2.30	5.70	2.97	0.12	2.88	0.00	0.00	0.59	1.06	0.00	5.30	25.74
1885	2.04	0.58	0.35	1.22	0.00	0.55	0.00	0.00	0.02	0.79	7.69	3.98	17.22
1886	4.57	0.20	0.64	3.65	0.10	0.00	0.00	0.00	0.00	0.65	0.00	1.25	11.06
1887	0.42	5.97	1.17	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.60	1.90	11.97
1888	3.32	1.08	2.46	0.30	0.60	0.39	0.00	0.00	0.74	0.09	3.83	5.69	18.41
1889	0.30	0.43	5.36	0.33	0.72	0.37	0.00	0.00	0.00	6.35	2.64	7.75	24.25
1890	6.27	3.03	......	......	......	......	......	......	......	......	......	......	......
Means	3.37	2.68	1.99	1.43	0.42	0.34	0.03	0.02	0.18	0.50	1.80	3.48	16.24

CORNING, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	......	......	......	......	......	3.30	......
1886	5.68	0.00	1.41	3.45	0.58	0.00	0.00	0.00	0.00	0.30	0.00	2.01	13.43
1887	0.45	6.81	1.46	2.86	0.28	0.18	0.00	0.00	0.00	0.00	1.37	3.70	17.11
1888	3.64	2.09	3.20	0.19	0.40	0.79	T	0.00	0.52	0.00	3.34	5.37	19.54
1889	0.27	0.76	4.37	0.55	1.38	0.65	0.00	0.00	0.00	5.74	3.26	10.11	27.09
1890	[2.51]	2.28	4.56	1.25	2.34	0.00	......	......	......	......	......	......	......
Means	2.91	2.63	2.54	1.75	0.66	0.12	T	0.00	0.24	1.26	1.59	3.14	16.84

Monthly and annual precipitation at stations in California—Continued.

CROOK, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1858	2.23	4.38	2.57	1.28	0.13	0.34	0.00	0.03	0.04	3.67	1.32	6.39	22.38
1859	1.81	5.96	4.06	1.26	0.60	0.00	0.00	0.05	1.80	0.00	3.85	1.00	20.39
1860	2.14	0.27	5.10	3.09	3.06	0.44	2.22	0.00	0.23	2.97	1.33	5.04	25.89
1861	1.20	4.78	4.03	1.82	1.38	0.66	0.00			0.09	6.18	9.76	
1862	8.22	4.96	3.53	2.61	2.59	2.45	0.02	0.00	0.40	0.39	0.00	1.81	27.01
1863	3.60	3.09	2.80	1.00	0.40	0.40	T	0.00	0.00	0.00	0.06	2.00	13.35
1864	1.10		5.80	1.00	1.34	0.35	0.00	0.00	0.00	1.05	7.00	7.47	
1865		2.16	2.23	1.20	1.30	0.60	0.00	0.00	1.02	1.55	8.75		
1866			8.32	0.88					0.00	0.00	0.80	11.75	
1867	5.27	4.44	0.75	1.86	0.50	0.30	0.00	0.00	0.80	0.73	1.12		
1868						*1.67	0.16	0.00	1.00	0.50	†0.56	†3.25	
1869	2.85	4.00	4.82	†1.56									
Means	3.16	3.78	4.00	1.60	1.25	0.72	0.24	0.01	0.53	1.00	2.82	5.39	24.50

* Estimated.

CRYSTAL SPRINGS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875									0.00	0.53	12.29	7.55	
1876	11.20	8.30	8.42	1.52	1.10	0.00	0.00	0.00	0.00	6.32	0.42	0.00	37.28
1877	5.20	1.43	3.42	0.13	0.23	0.00	0.00	0.00	0.00	0.85	2.59	2.55	16.40
1878	16.28	21.00	9.81	2.31	0.20	0.00	0.00	0.00	1.41	2.36	0.81	1.60	55.18
1879	9.69	8.09	14.75	3.44	2.57	0.00	0.00	0.00	0.00	1.68	4.14	9.41	53.77
1880	5.16	3.44	3.85	17.19	3.14	0.00	0.00	0.00	0.00	0.00	0.00	18.56	51.34
1881	11.14	5.17	1.34	1.48	0.24	0.60	0.25	0.00	0.71	1.11	2.00	5.48	29.52
1882	2.39	2.60	7.03	3.35	0.27	0.00	0.00	0.00	0.45	2.34	5.24	1.63	25.30
1883	3.10	0.56	3.87	1.68	4.19	0.00	0.00	0.00	0.00	2.32	1.23	1.48	18.43
1884	5.74	8.29	11.78	5.50	0.35	3.95	0.00	0.00					
Means	7.77	6.54	7.14	4.07	1.37	0.51	0.03	0.00	0.29	1.95	3.19	5.30	38.16

DAGGETT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883								0.06	0.00	0.00	0.00	0.29	
1884	0.48	1.44	1.17	0.10	0.49	0.00	0.00	0.00					
Means	0.48	1.44	1.17	0.10	0.49	0.00	0.00	0.03	0.00	0.00	0.00	0.29	4.00

DAVIS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871									0.00	0.00	1.20	11.55	
1872	4.34	1.92	0.06	0.00	0.11	T	0.00	T	T	0.00	1.50	6.50	14.43
1873	1.00	2.26	0.50	0.19	0.00	0.00	0.00	0.00	0.00	0.20	0.27	9.68	14.10
1874	3.39	1.46	2.50	0.55	0.25	0.00	0.00	0.00	0.00	1.60	2.50	0.10	12.35
1875	5.75	0.00	0.38	0.00	0.10	0.75	0.00	0.00	0.00	0.16	3.85	2.60	13.60
1876	3.53	3.69	3.67	1.01	0.20	0.00	0.20	0.02	T	0.00	0.00	0.00	12.32
1877	2.84	1.12	0.50	0.12	0.32	0.00	T	0.00	0.60	0.73	0.34	1.00	6.97
1878	8.72	6.49	1.75	0.66	0.31	0.00	0.00	0.00	0.15	0.34	1.00	0.19	19.61
1879	2.38	2.65	3.80	1.04	1.20	0.18	0.00	0.00	0.00	0.36	1.79	2.72	16.12
1880	1.80	1.17	1.16	7.46	0.57	0.00	0.00	0.00	0.00	0.00	0.00	10.47	22.63
1881	3.94	2.12	1.19	1.13	0.00	0.00	0.00	0.00	0.23	0.28	1.65	2.38	12.92
1882	1.28	1.92	2.76	1.13	0.00	0.00	0.00	0.00	0.19	1.78	2.84	†0.68	12.58
1883	2.20	0.71	3.19	1.00	3.19	0.00	0.00	0.00	0.72	0.90	0.35	0.43	12.69
1884	3.07	3.78	5.09	3.07	0.00	1.39	0.00	0.00	0.28	1.48	0.00	5.25	23.41
1885	1.32	0.14	0.10	1.22	0.00	0.00	0.00	0.00	0.05	0.00	7.87	4.56	15.26
1886	5.32	0.20	1.70	4.75	0.05	0.60	0.00	0.00	0.00	0.48	0.00	1.81	14.31
1887	0.99	6.14	0.78	2.03	0.00	0.00	0.00	0.00	0.05	0.00	0.50	2.52	13.01
1888	4.23	1.10	2.80	0.30	0.70	0.00	0.00	0.00	0.65	0.00	5.06	4.20	18.84
1889	0.20	0.41	6.62	1.17	1.48	0.34	0.00	0.00	0.00	8.14	3.04	9.02	30.42
1890	6.36	3.69	3.35	1.60	2.21	0.00							
Means	3.30	2.17	2.21	1.58	0.58	0.14	0.01	T	0.12	0.87	1.78	3.98	16.74

Monthly and annual precipitation at stations in California—Continued.

DELANO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	0.07	0.00	......	T	0.00	0.00	2.49	10.55	....
1876	1.23	1.82	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	4.10
1877	0.55	0.49	1.63	1.02	0.23	0.00	0.00	0.00	0.00	0.00	0.36	0.56	4.84
1878	1.25	1.95	1.55	1.41	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	6.24
1879	0.18	0.10	0.07	0.93	0.06	0.00	0.00	0.00	0.00	0.43	0.74	1.16	3.67
1880	0.55	2.97	0.30	2.40	0.20	0.00	0.00	0.00	0.00	0.00	0.05	2.60	9.07
1881	1.85	0.60	1.10	0.50	0.05	0.00	0.00	0.00	0.02	0.30	0.42	T	4.84
1882	0.51	1.10	0.83	0.83	0.50	0.00	0.00	0.00	0.05	0.55	1.00	0.00	5.37
1883	0.00	0.40	0.83	0.50	3.58	0.00	0.00	0.00	0.00	0.26	0.00	0.49	6.06
1884	1.61	2.38	1.98	2.31	2.27	0.22	0.00	0.00	0.00	0.00	0.16	2.16	13.09
1885	0.13	0.00	0.36	1.15	0.03	0.00	0.00	0.00	0.00	0.15	3.55	1.60	6.97
1886	0.75	0.20	0.80	1.54	0.00	0.00	0.00	0.00	0.00	T	0.69	0.34	4.32
1887	0.20	2.63	0.00	1.44	0.68	0.00	0.00	0.00	0.00	0.00	0.03	0.60	5.58
1888	2.21	[1.09]	0.94	0.00	0.15	0.00	0.00	0.00	0.00	[0.00]	1.51	1.19	7.09
1889	0.63	0.05	2.10	0.22	0.16	0.00	0.00	0.00	0.00	2.46	0.56	1.93	8.11
1890	[0.83]	0.62	0.42	0.08	0.61	0.00	......	......	......	......	......	......	....
Means	0.83	1.09	0.92	0.96	0.54	0.01	0.00	T	T	0.32	0.77	0.88	6.32

DELTA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	......	......	......	......	......	......	......	......	0.10	9.20	8.14	3.94	....
1883	1.00	0.00	14.46	8.49	9.94	0.00	0.00	0.00	0.00	6.18	1.10	4.24	45.41
1884	15.57	4.55	13.44	16.55	2.73	7.12	0.25	0.00	1.03	6.01	0.56	16.24	84.05
1885	2.91	2.53	0.37	2.54	0.67	1.60	0.00	0.00	0.00	0.60	29.38	12.94	53.54
1886	9.95	0.50	3.52	10.19	8.16	0.60	0.00	0.00	T	1.30	0.30	8.81	43.33
1887	3.84	10.27	3.37	5.53	1.26	0.82	0.00	0.00	0.00	0.00	0.75	2.23	28.07
1888	10.40	4.67	1.70	0.00	2.45	3.30	0.00	0.00	[0.16]	[7.14]	[7.18]	10.56	[47.56]
1889	0.15	1.02	37.52	2.91	5.81	1.07	0.00	0.00	0.00	26.71	10.03	25.83	111.05
1890	17.18	21.11	16.50	4.78	2.33	0.00	......	......	......	......	......	......	....
Means	7.62	5.58	11.36	6.37	4.17	1.81	0.04	0.00	0.16	7.14	7.18	10.60	62.03

DENVERTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	0.00	T	0.00	0.00	1.27	0.27	1.51	....
1887	0.83	5.64	0.81	2.17	0.06	0.00	0.00	0.00	0.19	0.00	0.54	3.06	13.30
1888	3.57	1.56	3.18	0.04	0.43	0.28	T	0.00	0.67	......	......	......	....
Means*	4.05	2.46	2.46	1.77	0.52	0.27	0.01	T	0.18	0.91	2.30	2.55	17.48

* Monthly data for 13 years prior to 1886 not now available. The averages for the 13-year period have, however, been included in the means here given.

DOG CREEK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	5.07	15.37	13.01	4.11	5.28	......	0.08	......	0.10	9.20	8.14	3.94	....
1883	1.00	......	14.46	8.49	9.94	......	......	......	......	6.18	1.10	4.24	....
1884	15.57	4.55	13.44	16.55	2.73	7.12	0.25	......	1.03	7.99	2.32	19.70	....
1885	4.30	......	......	......	......	......	......	......	......	......	......	......	....
Means	6.48	9.96	13.64	9.72	5.98	7.12	0.16	......	0.56	7.79	3.85	9.29	....

DOWNEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	......	0.08	....
1887	0.02	5.64	0.04	2.31	0.08	0.07	0.00	0.00	0.28	0.41	0.45	2.46	11.76
1888	5.33	0.82	6.32	0.11	0.02	0.00	0.00	0.00	T	0.10	2.94	4.75	20.39
1889	0.55	0.73	4.74	0.48	0.32	0.00	0.00	[0.00]	0.84	3.66	1.33	10.44	23.09
1890	4.68	1.51	0.77	0.00	0.00	0.00	......	......	......	......	......	......	....
Means*	2.62	1.80	3.04	1.27	0.08	0.00	0.00	0.10	0.28	1.04	1.34	3.88	15.45

* Monthly data from December, 1885 to Nov., 1886, not obtainable. The averages have, however, been included in the means here given.

Monthly and annual precipitation at stations in California—**Continued.**

DRUM BARRACKS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864	......	......	......	......	0.09	0.00	0.00	T	......	......	2.53	1.46	......
1865	2.07	1.16	T	0.06	T	0.00	0.00	0.00	0.00	0.00	0.27	0.86	4.42
1866	2.96	1.58	0.76	0.10	......	......	......	......	0.00	0.00	0.33	2.44	......
1867	3.30	0.34	7.85	......	T	......	0.00	1.20	0.00	......	......	9.26	......
1868	5.10	2.05	0.60	1.25	0.00	0.00	0.25	T	0.00	0.00	......	2.20	......
1869	1.53	1.11	4.05	0.17	......	......	......	0.00	0.00	......	0.70	0.76	......
1870	0.52	1.33	0.18	T	......	......	......	0.60	0.00	0.15	T	0.38	......
1871	0.05	0.59	0.00	0.20	T	T	......	0.00	0.00	T	T	......	......
Means	2.22	1.17	1.92	0.30	0.02	T	0.06	0.17	0.00	0.03	0.64	2.48	9.01

DUNNIGAN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	0.00	0.00	0.00	0.00	......
1877	2.19	0.86	0.31	0.00	0.12	0.00	T	0.00	0.00	0.69	0.92	0.83	5.92
1878	10.50	6.28	1.94	0.44	0.52	0.00	0.00	0.00	0.00	0.52	0.81	0.01	21.02
1879	2.35	2.10	4.39	1.22	0.86	0.15	0.00	0.00	0.00	0.06	2.07	2.89	16.09
1880	0.70	0.88	0.87	6.06	0.40	0.00	0.00	0.00	0.00	0.00	0.05	10.23	19.19
1881	5.67	1.45	0.67	1.23	0.20	0.15	0.00	0.00	0.77	0.38	0.52	3.22	14.26
1882	1.00	2.04	2.33	1.23	0.00	0.12	0.00	0.00	0.42	1.19	2.63	0.55	11.51
1883	2.05	0.35	3.65	0.72	4.67	0.00	0.00	0.00	0.53	0.72	0.45	0.35	13.49
1884	3.26	3.21	5.78	2.78	T	2.59	0.00	0.00	0.04	1.28	0.00	7.16	26.10
1885	1.66	0.32	0.13	1.10	0.00	0.00	0.00	0.00	0.05	1.45	10.47	3.68	18.86
1886	8.37	T	1.69	3.61	0.18	0.00	0.00	0.00	0.00	0.51	T	1.91	16.27
1887	0.97	6.93	1.13	2.41	0.00	0.00	0.00	0.00	0.00	0.00	0.83	3.30	15.57
1888	4.18	1.03	3.39	0.00	1.62	0.00	0.00	0.00	0.59	0.00	4.59	5.88	21.28
1889	0.27	0.60	6.17	1.49	1.46	0.28	0.00	0.00	0.00	6.30	3.59	9.66	29.91
1890	7.22	3.62	3.90	1.16	1.91	0.00	......	......	......	......	......	......	......
Means	3.60	2.12	2.60	1.68	0.85	0.24	T	0.00	0.17	0.91	1.92	3.55	17.67

DUNSMUIR, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	0.00	0.00	0.00	?	2.95	......
1889	0.30	0.33	4.39	2.43	7.06	1.12	0.00	0.00	0.00	20.15	11.65	20.57	68.00
1890	23.60	16.50	......	11.85	2.45	0.40	......	......	......	......	......	......	......
Means	11.95	8.42	4.39	7.14	4.76	0.76	0.00	0.00	0.00	10.08	11.65	11.76	70.91

EAST BROTHER LIGHT-HOUSE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	0.00	0.00	0.00	0.62	......
1876	1.51	1.15	1.26	0.00	0.02	0.00	0.00	0.00	0.06	0.53	4.28	0.00	8.81
1877	2.43	0.12	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.06	0.09	1.00	3.79
1878	6.19	2.94	0.70	0.36	0.02	0.00	0.00	0.00	0.04	0.82	0.33	0.03	11.43
1879	1.00	1.00	0.99	0.11	0.61	0.02	0.00	0.00	0.00	0.08	2.66	1.12	7.62
1880	0.52	0.33	0.14	1.57	0.40	0.00	0.00	0.00	0.00	0.00	0.01	3.00	6.27
1881	2.46	1.38	0.40	0.52	0.05	0.15	0.00	0.00	0.02	0.08	0.78	0.60	6.33
1882	0.31	1.31	1.28	0.35	0.00	0.00	0.00	0.00	0.30	0.42	2.61	0.65	7.31
1883	0.80	0.35	1.53	0.35	1.59	0.00	0.00	0.00	0.03	0.02	0.07	0.21	5.43
1884	1.54	2.31	1.60	2.03	0.00	1.03	0.00	0.00	0.00	0.83	0.00	2.15	11.49
1885	0.53	[1.33]	0.27	1.68	0.00	0.00	0.00	0.00	0.00	0.50	5.13	1.71	[11.15]
1886	1.50	[1.33]	0.99	1.15	0.14	0.00	0.00	0.00	0.00	0.36	0.08	1.07	[6.62]
1887	0.17	3.01	0.16	0.32	0.02	0.00	0.00	0.00	0.28	0.00	0.10	0.94	5.00
1888	2.15	0.24	0.87	0.00	0.05	0.05	0.00	0.00	0.70	0.00	3.40	2.50	9.87
1889	0.70	0.55	3.20	0.12	0.40	0.00	0.00	0.00	0.00	3.70	1.50	5.60	15.77
1890	3.45	2.55	1.92	0.37	0.83	0.00	0.00	0.00	0.05	0.00	0.00	......	......
Means	1.68	1.33	1.04	0.60	0.28	0.08	0.00	0.00	0.09	0.46	1.32	1.41	8.29

***Monthly and annual precipitation at stations in California*—Continued.**

EDGWOOD, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	0.89	0.15	......	0.75	......
1889	0.30	0.10	8.43	0.69	2.30	0.11	0.33	0.00	0.00	7.80	2.35	......	......
1890	5.60	......	5.04	0.70	1.60	1.72	......	......	......	......	......	......	......
Means	2.95	0.10	6.74	0.70	1.95	0.92	0.33	0.00	0.44	3.98	2.35	0.75	21.21

EL CAJON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	......	1.99	1.01	......
1876	3.83	2.71	2.53	0.11	0.02	0.02	0.07	......	......	......	0.14	0.07	......
1877	......	......	1.00	0.40	......	......	......	......	......	......	......	......	......
Means	3.83	2.71	1.76	0.26	0.02	0.02	0.07	......	......	......	1.06	0.54	......

EL DORADO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	......	......	......	e4.00	......
1889	0.31	0.38	8.41	1.60	7.50	0.12	0.00	0.00	0.00	7.46	6.32	14.94	47.04
1890	12.48	5.74	10.09	3.00	3.45	0.00	......	......	......	......	......	......	......
Means	6.40	3.06	9.25	2.30	5.48	0.06	0.00	0.00	0.00	7.46	6.32	9.47	49.80

ELLIS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	1.25	1.41	0.22	0.03	0.00	T	0.00	0.00	0.00	T	0.66	9.50	11.82
1872	1.76	1.75	0.79	0.22	0.16	0.00	0.00	T	0.00	0.00	0.79	3.77	9.24
1873	0.58	2.19	0.08	0.27	0.00	0.00	0.00	0.00	0.00	0.54	0.26	2.08	6.00
1874	2.53	0.75	2.60	0.25	0.20	0.00	0.00	0.00	0.10	0.71	1.25	0.12	8.51
1875	3.68	0.02	0.43	0.05	0.29	0.23	0.00	0.00	0.00	0.00	3.81	1.54	10.05
1876	1.13	1.52	1.78	0.63	T	0.00	0.05	0.00	0.00	0.85	0.17	0.00	6.13
1877	2.02	0.20	0.56	1.23	0.25	0.00	0.00	0.00	0.00	0.15	0.70	0.78	5.89
1878	3.01	4.15	1.47	0.85	0.21	0.00	0.00	0.00	0.00	0.05	......	......	......
Means	2.00	1.50	0.99	0.44	0.14	0.03	0.01	T	0.01	0.29	1.09	2.54	8.88

ELMIRA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	......	......	......	......	......	4.03	......
1886	8.01	0.00	1.35	4.22	0.14	0.00	0.00	0.00	0.00	0.38	0.00	2.72	16.82
1887	1.01	7.10	0.55	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.76	3.41	14.89
1888	4.81	1.49	3.92	T	0.45	0.19	0.00	0.00	0.08	0.00	0.28	4.4[illegible]	15.69
1889	0.32	0.88	6.32	0.59	1.67	0.15	0.00	0.00	0.00	6.54	0.20	9.96	26.63
1890	8.68	4.08	5.26	1.05	1.86	0.00	......	......	......	......	......	......	......
Means	4.57	2.71	3.48	1.58	0.82	0.07	0.00	0.00	0.02	1.73	0.31	4.92	20.21

EL MONTE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	......	......	......	......	......	......	......	......	......	......	3.55	......
1873	0.25	6.45	......	......	......	......	......	1.00	......	0.20	1.15	5.70	......
1874	4.85	8.60	2.70	1.20	0.20	......	......	......	......	1.02	......	0.10	......
1875	10.20	0.20	......	......	......	......	0.00	0.00	0.00	0.00	4.80	0.80	......
1876	8.05	4.75	2.50	0.60	......	......	......	......	......	0.50	......	......	......
Means	5.84	5.00	2.60	0.90	0.20	......	0.00	0.50	0.00	0.43	2.98	2.54	......

Monthly and annual precipitation at stations in California—**Continued.**

ELSINORE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886												0.09	
1887	0.16	7.01	0.06	1.54	0.02	0.05	T	0.00	0.16	0.32	1.72	4.04	15.08
1888	6.09	0.80	5.87	0.08	0.09	0.00	0.10	0.00	0.06	0.69	2.93	5.37	22.08
1889	1.41												
Means	2.55	3.90	2.96	0.81	0.06	0.02	0.05	0.00	0.11	0.50	2.32	3.17	16.45

EL VERANO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888								0.00	0.85	0.00	6.05	7.58	
1889	1.16	0.68	10.69	0.96	3.38	0.17	0.00	0.00	0.00	9.73	5.70	14.85	47.32
1890	14.27	5.84	6.94	1.64	1.39	0.00							
Means	7.72	3.26	8.82	1.30	2.38	0.08	0.00	0.00	0.42	4.86	5.88	11.22	45.94

EMIGRANT GAP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870			6.39	3.16	0.46	0.04	0.00	0.00	0.00	1.63	3.00	6.30	
1871	5.75	7.15	2.75	2.80	3.31	0.41	0.00						
1872		14.58	6.08	4.44	0.27	0.00	0.00	0.00	0.00	0.50	0.20	15.65	
1873	6.30	18.50	2.70	1.58	3.31	0.00	0.01	0.00	0.00	1.25	2.70	17.30	53.68
1874	10.02	10.42	22.12	0.50	0.63	0.63	0.00	0.00	0.00	2.00	1.00	0.40	47.72
1875	5.85	0.20	2.90	1.00	2.50	1.50	0.00	0.00	0.00	0.00	9.10	3.90	26.95
1876	14.80	5.70	7.30	2.70	1.50	0.80	0.30	0.00	0.00	1.75	0.60	0.00	35.45
1877	4.30	0.05	0.50	0.50	1.20	[0.80]	T	0.00	0.00	0.32	5.44	1.62	[14.73]
1878	15.72	16.87	7.17	3.87	0.53	0.00	0.00	0.00	0.65	2.25	3.04	0.75	50.85
1879	15.43	13.21	21.69	7.76	2.81	0.34	0.00	0.00	0.00	3.30	5.11	12.33	81.98
1880	10.10	9.88	9.75	21.76	3.42	0.06	0.00	0.00	0.00	0.00	0.30	15.38	70.65
1881	25.69	5.42	5.49	4.63	0.37	2.54	0.00	0.00	1.70	6.68	2.90	5.64	61.06
1882	10.03	9.40	16.60	2.60	1.55	0.40	0.00	0.00	0.60	7.95	2.15	3.31	54.59
1883	3.22	4.00	10.06	3.39	4.90	0.00	0.00	0.00	1.25	3.66	1.20	3.15	34.74
1884	8.22	10.20	15.18	10.84	2.10	2.77	0.00	0.00	0.91	1.93	0.00	31.20	83.35
1885	2.68	2.15	0.40	3.89	0.20	1.83	0.00	0.00	0.53	0.00	18.69	7.38	37.75
1886	18.28	1.97	6.90	11.90	2.73	T	0.00	0.00	0.00	2.96	0.40	8.00	53.14
1887	4.12	18.80	2.03	6.17	1.02	1.14	0.00	0.13	0.05	3.00	1.50	7.70	45.66
1888	17.05	3.92	5.42	3.30	2.23	3.04	0.62	0.00	0.10	0.00	1.77	7.39	44.84
1889	[10.80]	[8.54]	5.69	2.29	8.61	0.38	0.00	0.00	0.00	11.81	11.41	20.85	[80.38]
1890	16.90	9.80	13.15	0.46	2.11	0.00							
Means	10.80	8.54	8.11	4.74	2.18	0.79	0.05	0.01	0.30	2.68	3.71	8.86	50.77

ESCONDIDO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876							0.00	0.00	0.00	0.05	0.16	0.07	
1877	3.80	2.87	1.00	0.42	0.18	0.33	0.00	0.00	0.03	0.09	0.78	4.03	13.53
1878	3.97	7.90	2.49	5.66	1.40	0.47	0.00	0.00	0.00	0.28	0.35	0.98	23.50
1879	3.20	1.34	0.41	1.59	0.18	0.33	0.00	T	0.00	0.45	3.50	1.50	12.50
1880							0.00	0.20	0.00	0.75	0.75	4.05	
1881	0.91	0.70	2.75	0.66	0.00	0.00	0.00	0.00	0.10	1.20	0.25	0.60	7.17
1882	3.80	2.87	1.00	0.30	0.20	0.00	0.00	0.00	0.08	0.68	0.84	0.20	9.97
1883	1.03	1.40	1.30	0.87	1.30	0.00	0.00	0.00	0.00	1.45	T	3.58	10.93
1884	2.22	9.83	8.66	3.26	2.00	1.05	0.00	0.00	0.00	0.30	0.48	4.96	32.76
1885	0.45	0.60	T	2.61	0.00	0.00	0.00	0.00	0.00	0.00	4.68	0.75	9.09
1886	7.33	0.80	4.71	2.60	T	0.00							
Means	2.97	3.15	2.48	2.00	0.58	0.24	0.00	0.02	0.02	0.52	1.18	2.07	15.23

ESPERANZA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888									0.80	0.00	5.13	6.29	
1889	0.35	0.78	5.70	0.66	1.47	0.18	0.00	0.00	0.00	6.14	3.79	9.41	28.48
1890	8.58	3.98	3.05	0.83									
Means	4.46	2.38	4.38	0.74	1.47	0.18	0.00	0.00	0.40	3.07	4.46	7.85	29.39

Monthly and annual precipitation at stations in California—Continued.

EUREKA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	8.86	9.07	2.28	5.55	3.51	1.92	0.06	0.07	0.21	0.55	2.66	5.43	40.17
1888	12.95	1.98	4.09	1.05	0.76	4.66	0.44	T	0.06	1.15	3.41	5.93	36.48
1889	4.25	1.93	5.91	3.49	7.20	0.37	0.15	0.13	0.32	8.36	3.71	12.88	48.70
1890	18.26	13.88	11.57	2.26	1.71	0.87	......	......	......	......	......	......	....
Means	11.08	6.72	5.96	3.09	3.30	1.96	0.22	0.07	0.20	3.35	3.26	8.08	47.29

EVERGREEN, CAL.

1886	......	......	......	......	......	......	......	......	......	0.50	0.95	0.96	....
1887	0.79	6.13	0.75	0.08	0.07	0.00	0.00	0.00	0.32	0.00	0.83	2.47	11.44
1888	2.61	1.44	3.32	0.08	0.81	0.24	0.00	0.00	0.57	0.00	2.82	2.07	13.96
1889	0.56	0.68	5.26	1.06	1.01	0.01	0.00	0.00	0.00	3.07	2.40	9.88	23.93
1890	6.30	4.86	1.95	0.74	1.50	0.00	......	......	......	......	......	......	....
Means	2.56	3.28	2.82	0.49	0.85	0.06	0.00	0.00	0.30	0.89	1.75	3.84	16.84

FAIRFIELD OR SUISUN, CAL.

1871	......	......	......	......	......	......	......	......	1.00	2.13	1.56	16.95	....
1872	3.88	[2.75]	[2.89]	1.09	0.00	0.82	0.00	0.00	0.00	0.02	2.00	7.29	[20.74]
1873	0.64	3.29	1.34	0.60	0.00	0.00	0.00	0.00	0.00	0.30	0.60	10.29	17.06
1874	5.03	1.25	2.17	0.91	0.16	0.00	0.00	0.00	0.08	1.78	7.05	0.00	18.43
1875	7.17	0.65	1.58	0.00	0.00	0.55	0.00	0.00	0.00	0.20	2.03	3.00	15.18
1876	0.76	[2.75]	1.76	0.00	0.00	0.00	0.00	0.00	T	2.53	0.28	0.00	[8.08]
1877	4.12	1.87	0.52	0.10	0.09	0.00	T	0.00	0.00	0.16	1.07	1.33	9.26
1878	10.91	8.66	3.28	0.87	0.22	0.00	0.00	0.00	0.69	1.33	0.61	0.16	26.73
1879	3.60	4.06	7.70	1.39	1.48	0.15	0.00	0.00	0.00	0.59	1.84	5.37	26.18
1880	1.16	1.10	0.96	7.07	0.85	0.00	0.00	0.00	0.00	0.00	0.02	10.80	21.96
1881	7.17	3.46	1.06	1.41	0.10	0.50	0.79	0.00	0.31	0.73	1.27	4.28	21.08
1882	1.78	2.53	2.57	1.53	0.14	0.00	0.00	0.00	0.09	2.43	2.82	0.57	14.37
1883	1.65	0.85	4.35	0.88	3.82	0.20	0.00	0.00	0.58	0.15	0.52	0.70	13.70
1884	2.64	4.48	6.33	3.78	0.30	1.69	0.00	0.00	0.00	0.70	0.00	7.46	27.38
1885	1.06	1.25	0.64	1.52	0.02	0.00	0.00	0.00	0.05	0.22	10.38	4.43	19.57
1886	8.18	T	1.87	4.02	0.15	0.00	0.00	0.00	0.09	0.49	0.22	1.80	16.73
1887	0.82	6.37	0.85	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.96	2.79	13.53
1888	4.30	1.58	3.97	0.00	0 65	0.30	[0.00]	0.00	[0.00]	[0.00]	[2.03]	4.48	[17.31]
1889	0.50	0.85	5.65	0.43	1.47	0.00	0.00	0.00	0.00	6.47	3.27	10.18	28.82
1890	7.38	4.50	5.46	1.00	1.02	0.00	......	......	......	......	......	......	....
Means	3.83	2.75	2.89	1.49	0.55	0.22	0.05	0.00	0.14	1.06	2.03	4.84	19.85

FALLBROOK (OAKWOOD), CAL.

1876	6.17	3.78	2.77	0.15	[0.61]	0.00	0.15	0.00	0.20	0.23	0.07	0.08	[14.21]
1877	3.41	0.59	2.28	0.55	1.11	0.00	0.00	T	0.00	0.59	0.58	4.02	13.13
1878	3.19	8.01	2.08	4.63	1.41	0.33	0.00	T	0.00	0.32	0.25	1.64	21.86
1879	3.21	0.90	0.29	0.83	0.03	0.23	0.00	-0.05	0.00	0.42	3.61	5.87	15.44
1880	1.46	1.86	2.12	4.99	0.05	0.02	0.03	0.26	......	......	......	......	....
1881	......	......	2.93	......	......	......	......	......	......	......	......	......	....
1882	2.65	4.02	2.42	1.64	0.09	0.26	T	0.12	0.03	0.70	1.01	0.33	13.27
1883	[3.46]	2.68	1.89	1.23	1.87	0.00	0.00	0.00	0.00	2.96	0.00	3.32	[17.41]
1884	3.56	15.36	10.90	3.13	1.02	0.52	......	......	......	0.53	0.54	7.07	....
1885	0.92	0.13	0.29	2.60	0.29	0.11	0.00	0.02	0.00	0.00	5.92	1.13	11.41
1886	9.76	1.13	4.70	3.43	0.00	0.14	T	0.11	0.12	0.04	1.95	0.30	21.68
1887	0.28	5.65	0.05	2.02	0.24	0.06	0.05	0.00	0.83	0.20	2.03	3.56	14.97
Means	3.46	4.01	2.72	2.29	0.61	0.15	0.02	0.06	0.13	0.60	1.60	2.73	17.64

Monthly and annual precipitation at stations in California—**Continued.**

FARMINGTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	0.86	1.25	0.29	0.04	0.00	0.00	0.00	0.19	0.90	1.62	......
1878	6.43	4.91	3.05	0.63	0.00	0.00	0.00	0.00	T	0.55	0.51	0.41	16.49
1879	2.73	2.81	3.15	1.99	1.01	0.30	0.00	0.00	0.00	0.70	0.86	2.25	15.80
1880	1.63	1.80	1.08	7.31	1.31	0.00	0.00	0.00	0.00	T	0.40	6.04	19.57
1881	2.40	2.78	1.30	0.18	0.00	0.10	0.00	0.00	0.17	0.44	0.55	1.62	9.54
1882	2.10	2.35	3.05	2.55	0.13	0.13	0.00	0.00	0.30	2.23	1.90	1.51	16.25
1883	2.70	0.78	2.90	1.42	3.06	0.00	0.00	0.00	0.76	1.66	0.79	0.73	14.80
1884	1.44	5.04	6.53	4.72	0.35	1.32	0.00	0.00	0.09	1.15	0.00	6.21	26.85
1885	1.03	0.00	0.16	0.46	0.00	0.17	0.00	T	T	0.00	6.95	1.37	10.14
1886	4.60	0.41	1.87	5.01	0.19	0.00	0.00	0.00	0.00	0.27	0.89	1.37	14.61
1887	0.36	3.37	0.29	2.89	0.00	T	0.00	0.00	0.39	T	0.20	2.32	9.82
1888	3.82	0.15	3.52	0.07	0.92	0.00	T	[0.00]	0.66	0.00	2.93	1.75	[13.82]
1889	0.30	0.70	3.07	0.20	1.88	T	0.00	0.00	0.00	2.82	3.22	8.00	20.19
1890	[2.46]	1.87	1.78	1.37	1.14	0.00	......	......	......	......	......	......	......
Means	2.46	2.07	2.33	2.15	0.73	0.15	T	T	0.18	0.77	1.55	2.71	15.10

FARALLON LIGHT-HOUSE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	......	......	......	......	......	......	0.00	0.00	0.00	0.00	0.00	8.11	......
1881	5.89	3.46	0.67	0.70	0.00	0.00	0.00	0.00	0.14	0.64	0.00	1.31	12.81
1882	1.09	2.97	3.10	1.29	0.00	0.00	0.00	0.00	0.35	1.42	3.20	2.12	15.54
1883	0.56	0.58	1.91	0.96	4.04	0.00	0.00	0.00	0.20	0.97	0.48	0.94	10.64
1884	4.00	4.76	5.15	4.41	0.00	2.81	0.00	0.00	0.33	2.44	0.35	5.56	29.81
1885	1.95	0.40	0.92	2.48	0.00	0.20	0.00	0.00	0.01	0.81	11.12	3.20	21.12
1886	4.34	0.41	2.34	3.52	0.37	0.60	0.00	0.00	0.50	1.15	0.55	1.40	14.58
1887	0.80	7.52	0.45	1.55	0.00	0.00	0.00	0.00	0.90	0.00	0.60	2.52	14.34
1888	3.20	0.53	2.59	[1.84]	0.05	0.16	0.00	0.00	0.35	0.05	3.30	4.56	[16.63]
1889	1.60	1.00	5.00	0.80	1.10	0.50	0.00	0.00	0.00	4.80	4.85	7.95	27.60
1890	6.35	1.85	3.80	0.82	1.10	0.00	0.00	0.00	0.00	0.00	0.00	1.26	15.18
Means	2.98	2.35	2.59	1.84	0.67	0.37	0.00	0.00	0.26	1.12	2.22	3.54	18.17

FAR WEST, CAMP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1850	6.71	0.60	5.56	1.40	0.00	0.00	0.00	0.00	2.00	0.01	2.10	2.00	20.38
1851	2.06	1.16	3.41	3.06	0.86	0.00	0.00	0.00	0.30	0.10	1.86	6.63	19.47
1852	1.69	0.13	10.05	......	......	......	......	......	......	......	......	......	......
Means	3.46	0.63	6.35	2.23	0.43	0.00	0.00	0.00	1.15	0.06	1.98	4.32	20.61

FELTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	T	0.53	0.00	7.82	[20.00]	......
1889	1.16	1.98	13.48	1.10	4.28	0.00	0.00	0.00	0.00	16.91	5.68	34.95	79.54
1890	21.06	7.11	10.60	3.29	1.64	0.00	......	......	......	......	......	......	......
Means	11.11	4.54	11.74	2.20	2.96	0.00	0.00	T	0.26	8.46	6.75	34.95	82.97

FENNER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	......	......	......	......	......	......	......	0.00	0.06	0.00	0.00	2.40	......
1884	0.15	1.30	1.25	0.15	1.09	0.05	0.00	0.00	0.00	......	......	......	......
Means	0.15	1.30	1.25	0.15	1.09	0.05	0.00	0.00	0.03	0.00	0.00	2.40	6.42

FIREBAUGH, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	......	......	......	......	......	......	......	......	......	......	2.65	......
1873	2.05	2.30	3.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.68	11.07
1874	1.78	0.84	1.81	0.47	0.00	0.00	0.00	0.00	0.65	1.09	1.28	0.15	8.07

Monthly and annual precipitation at stations in California—Continued.

FIREBAUGH, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	4.34	0.11	0.29	0.07	0.00	0.80	0.00	0.00	0.00	0.00	4.86	1.07	11.54
1876	2.70	1.79	1.05	0.41	0.00	0.22	0.00	0.00	0.00	0.63	0.00	0.00	6.80
1877	0.45	0.23	0.34	0.14	0.45	0.00	0.00	0.00	0.00	0.00	1. 1	1.71	4.43
1878	4.17	2.95	2.55	2.42	0.00	0.00	0.00	0.00	0.00	0.22	0.08	0.33	12.72
1879	0.77	1.12	0.85	0.85	0.00	0.15	0.00	0.00	0.00	0.58	1.17	1.83	7.32
1880	0.27	1.98	0.66	1.09	0.35	0.00	0.00	0.00	0.00	0.00	0.75	2.42	7.52
1881	1.33	0.46	0.99	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.13	3.34
1882	0.45	0.52	1.33	0.54	0.34	0.00	0.00	0.00	0.26	0.55	0.48	0.00	4.47
1883	0.75	0.20	1.26	0.29	0.39	0.00	0.00	0.00	0.00	0.63	0.03	0.44	3.99
1884	2.09	3.20	2.16	2.13	0.65	1.41	0.00	0.00	0.00	0.30	0.00	2.69	14.03
1885	0.32	0.00	0.51	2.47	0.00	0.00	0.00	0.00	0.00	0.00	9.91	0.80	14.01
1886	3.52	0.22	1.94	2.45	0.00	0.00	......	......	......	......	......	......	....
Means	1.78	1.14	1.34	0.98	0.16	0.18	0.00	0.00	0.07	0.31	1.52	1.28	8.76

FLORENCE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.37	0.79	4.52	0.02	0.17	0.00	0.00	0.89	0.00	4.04	0.47	13.14	24.41
1890	5.01	1.13	......	0.00	0.00	0.00	......	......	......	......	......	......	....
Means	2.69	0.96	4.52	0.01	0.08	0.00	0.00	0.89	0.00	4.04	0.47	13.14	26.80

FOLSOM, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	T	0.55	1.95	13.12	....
1872	5.50	4.72	1.60	0.63	0.75	T	0.00	T	T	0.25	2.80	6.53	22.78
1873	1.64	4.05	0.34	0.05	0.03	0.00	0.01	T	T	T	1.39	10.51	18.02
1874	5.26	2.63	1.82	2.03	0.81	T	T	0.00	T	1.66	5.19	0.13	19.53
1875	6.14	0.04	1.24	T	0.07	1.23	0.00	0.00	0.00	0.26	7.12	4.49	20.59
1876	5.89	4.06	6.62	1.56	0.24	T	0.26	0.03	0.00	3.76	0.25	0.00	22.67
1877	3.38	0.68	0.81	T	1.02	T	T	T	0.00	0.75	0.54	1 34	8.52
1878	8.41	8.37	4.23	1.10	0.26	0.00	0.00	T	0.12	0.43	0.62	0.56	24.10
1879	4.87	4.94	5.43	3.38	1.44	0.12	0.00	T	0.00	1.21	2.20	3.19	26.78
1880	1.51	2.13	1.40	11.39	2.06	0.00	T	0.00	0.00	T	0.10	9.85	28.44
1881	6.70	6.07	1.38	1.13	T	0.68	0.00	0.00	0.40	1.21	1.57	3.45	22.59
1882	2.38	3.01	3.82	2.51	0.27	0.06	T	0.00	0.68	2.81	3.95	0.74	20.23
1883	2.11	0.80	5.46	1.10	4.57	0.00	0.00	0.00	1.82	1.41	0.81	0.92	19.00
1884	3.88	5.92	8.14	5.32	1.16	1.64	0.00	T	0.64	2.02	0.00	6.13	34.85
1885	1.91	0.84	0.15	1.68	T	0.21	0.02	T	0.21	T	10.91	4.88	20.81
1886	7.60	0.90	3.16	6.78	0.29	0.00	0.00	0.00	0.00	1.34	0.55	3.35	23.97
1887	1.27	9.21	1.30	2.84	0.03	0.22	0.00	T	0.38	0.00	0.59	4.82	20.66
1888	5.83	0.84	3.08	0.12	0.35	0.27	0.02	0.01	0.57	0.00	3.71	4.32	19.12
1889	0.32	0.68	7.07	0.61	2.89	0.23	0.00	0.00	0.00	5.70	4.85	9.41	31.76
1890	7.67	5.26	5.68	2.08	2.66	0.00	......	......	......	......	......	....	....
Means	4.33	3.43	3.30	2.33	0.99	0.25	0.02	T	0.25	1.23	2.58	4.62	23.33

FOUT SPRINGS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	......	......	......	0.20	19.43	4.85	....
1886	9.29	2.00	1.65	5.01	0.50	T	0.00	0.00	0.00	0.70	0.20	2.83	22.18
1887	2.00	7.88	2.12	1.66	T	T	T	0.00	T	0.00	1.25	4.35	19.26
1888	10.83	0.70	5.00	[3.34]	2.14	0.65	......	......	......	......	......	......	....
Means	7.37	3.53	2.92	3.34	0.88	0.22	T	0.00	T	0.30	6.96	4.01	29.53

FRESNO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	0.00	0.00	0.00	0.00	0.88	0.42	....
1878	3.20	1.76	1.91	0.78	T	0.00	0.00	0.00	0.00	0.20	0 56	0.22	8.63
1879	1.28	0.56	0.66	1.33	0.06	T	0.00	0.00	0.00	0.55	0.48	1.67	6.59
1880	0.46	2.54	0.61	1.97	0.15	0.00	0.00	0.00	0.00	0.00	0.44	3.05	9.22
1881	2.21	0.87	0.55	1.00	0.10	0.00	T	T	0.46	0.36	0.27	0.16	5.98

Monthly and annual precipitation at stations in California—Continued.

FRESNO, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	0.42	1.04	1.26	1.23	0.10	0.00	0.00	0.00	0.34	0.05	0.73	0.70	5.87
1883	0.00	0.57	2.46	0.95	1.36	0.00	0.00	0.00	0.00	2.00	T	0.34	7.68
1884	2.29	3.18	2.81	2.85	1.11	1.29	0.00	0.00	0.00	0.35	0.08	3.98	17.94
1885	0.45	0.00	0.53	1.11	0.15	0.00	0.00	0.00	0.00	0.06	7.92	1.90	12.12
1886	2.38	0.58	1.21	2.57	0.00	0.00	0.00	0.00	0.00	0.47	0.70	0.34	8.25
1887	0.31	2.80	0.09	2.65	0.03	0.02	0.00	0.00	0.49	0.15	0.32	1.16	8.02
1888	1.75	0.13	1.95	0.22	0.56	T	T	T	0.06	0.00	2.38	1.71	8.76
1889	0.34	0.32	2.07	0.54	0.57	0.00	0.00	T	0.00	3.17	1.39	3.87	12.27
1890	2.12	0.80	1.04	0.17	0.45	0.00							
Means	1.32	1.17	1.32	1.34	0.36	0.10	T	T	0.10	0.57	1.24	1.50	9.02

FRUTO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888									0.00	0.00	2.49	5.82	
1889	0.82	1.42	6.38	0.92	1.33	0.40	0.00	0.00	0.00	8.81	2.92	10.38	33.38
1890	7.58	1.94	3.28	0.81	2.11								
Means	4.20	1.68	4.83	0.86	1.72	0.40	0.00	0.00	0.00	4.40	2.70	8.10	28.80

GALT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877							0.00	0.00	0.00	0.54	0.90	1.26	
1878	5.62	5.55	3.67	0.89	0.08	0.00	0.00	0.00	0.07	0.27	0.60	0.63	17.38
1879	2.74	3.31	3.00	1.42	1.40	0.10	0.00	0.00	0.00	0.80	1.71	2.51	16.99
1880	1.12	1.39	1.29	7.31	0.27	0.00	0.00	0.00	0.00	0.00	T	6.35	17.73
1881	4.43	2.57	0.50	1.75	0.00	0.33	0.00	0.00	0.24	0.39	0.93	2.39	13.53
1882	1.35	1.83	3.77	1.87	0.15	0.00	0.00	0.00	0.05	2.17	2.24	0.25	13.68
1883	2.35	0.21	3.15	0.81	4.83	0.00	0.00	0.00	0.62	1.55	0.75	0.85	15.12
1884	1.70	4.09	5.46	2.09	0.58	1.36	0.00	0.00	0.00	1.31	0.00	6.06	22.65
1885	1.30	0.12	0.00	0.82	0.00	0.00	0.00	0.00	0.00	0.00	5.56	2.33	10.13
1886	6.04	0.00	2.69	3.58	0.15	0.00	0.00	0.00	0.00	0.92	0.85	1.76	15.99
1887	0.61	5.35	1.11	2.56	0.00	0.00	0.00	0.00	0.15	0.00	0.38	3.27	13.43
1888	3.97	0.46	3.14	0.40	0.39	0.00	0.00	0.00	0.92	0.00	3.87	3.14	16.29
1889	0.20	0.48	5.36	0.05	2.04	0.08	0.00	0.00	0.00	5.46	3.77	7.64	25.08
1890	6.83	3.31	[2.76]	[1.96]	1.87	0.00							
Means	2.94	2.21	2.76	1.96	0.50	0.14	0.00	0.00	0.16	1.03	1.66	2.96	16.72

GASTON, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1861									0.75		4.30	6.40	
1862	7.75	5.11	11.95	3.52	1.37	2.34	0.45	0.00	0.08	1.00	0.00	5.61	39.18
1863	13.95	10.72	8.72	6.08	1.13	0.29	0.72	0.20	1.40	0.02	6.67	13.86	63.76
1864	6.42	2.60	4.65	7.72	0.40	0.36	0.00	T	0.48	[2.90]	12.20	28.65	[66.38]
1865	5.00	7.60	5.30	[4.69]	0.35	0.10	T	T	1.00	2.15	24.75	14.50	[65.44]
1866	26.50	18.00	34.52	3.94					0.06	T	11.55	20.55	
1867	22.60	12.35	2.40					T	1.63	2.51	5.56	22.19	
1868	9.50	7.35	10.45	5.75	0.76	2.07	T	0.00	T	0.77	3.85	8.73	49.23
1869	14.67	4.03	4.81	6.42	0.62	0.00	0.10	0.70	2.05	0.09	7.64	6.88	48.01
1870	10.20	6.47	5.00	5.62	1.63	0.54	0.00	0.00	0.41	0.07	7.77	5.22	42.93
1871	5.62	4.44	7.54	4.40	2.71	1.10	0.32	0.00	2.10	0.70	5.94	11.14	46.01
1872	7.37	13.07	5.49	4.94	0.47	0.67	0.00	0.00	0.31	1.28	3.13	5.05	41.78
1873	6.03	8.35	3.06	2.40	0.39	1.09	0.63	[0.11]	0.00	1.90	2.21	8.70	[34.87]
1874	15.40	5.70	9.35	3.95	2.06	0.40	0.00	T	T	2.29	13.99	3.07	56.21
1875	4.86	0.59	4.21	1.23	3.72	0.75	T	T	0.00	9.14	23.13	14.33	61.96
1876	10.37	10.12	11.72	2.85	1.37	0.43	0.10	T	3.00	12.50	4.00	T	56.46
1877	4.86	11.00	5.94	1.45	1.70	1.50	T	0.50	0.25	3.29	10.28	3.50	44.27
1878	19.71	16.32	10.91	1.20	0.61	T	T	0.00	1.73	2.48	4.69	2.30	59.95
1879	5.46	7.20	19.28	5.27	3.77	0.35	0.22	0.97	0.61	3.27	11.24	13.35	70.99
1880	8.45	3.13	6.93	13.95	3.48	0.12	0.00	0.00	0.04	0.32	0.40	14.77	51.59
1881	20.78	13.46	2.00	2.60	1.00	1.27	0.06	0.27	0.30	6.51	4.83	9.24	62.32
1882	7.72	10.46	3.46	6.11	1.69	0.28	0.06	0.00	1.43	9.02	3.37	7.13	50.73
1883	6.11	3.08	3.27	7.73	4.30	0.00	0.00	0.06	2.87	3.86	2.19	9.10	42.57
1884	5.49	5.16	7.80	6.89	1.30	1.50	0.12	0.00	2.28	1.08	0.84	14.49	46.95

Monthly and annual precipitation at stations in California—Continued.

GASTON, FORT, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	5.73	6.26	0.38	2.13	0.95	0.58	0.12	T	0.96	0.31	24.54	9.36	51.32
1886	15.02	5.29	2.38	9.23	2.64	0.00	0.35	0.00	0.00	3.36	1.27	15.81	55.35
1887	9.43	9.96	2.63	4.64	3.19	1.62	0.00	0.00	0.00	0.20	3.80	8.36	43.83
1888	12.58	5.36	4.64	0.70	1.36	4.20	0.30	[0.11]	[0.85]	[2.90]	2.08	4.85	[39.63]
1889	8.57	2.32	9.48	2.90	6.06	0.04	0.00	0.00	T	7.31	6.24	13.94	56.86
1890	18.29	15.58	10.68	2.94	1.57	0.46	......	......	......	......	......	......	......
Means	10.84	7.97	7.55	4.69	1.87	0.82	0.14	0.11	0.85	2.90	7.33	10.37	55.44

GEORGETOWN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	......	......	......	......	......	......	......	......	......	4.30	18.72	......
1873	4.08	13.05	3.05	3.11	0.12	0.00	0.03	0.00	0.00	0.61	0.55	16.60	41.20
1874	16.66	8.03	13.87	5.80	1.32	0.20	0.00	0.00	0.00	3.86	11.60	1.24	65.58
1875	17.87	0.04	5.07	0.31	2.03	2.06	0.00	0.00	0.00	1.90	24.12	10.85	64.25
1876	13.09	9.97	14.54	4.78	1.22	0.00	0.77	0.00	0.00	11.47	0.80	0.00	56.61
1877	12.44	2.14	7.78	1.74	3.87	0.24	0.00	0.00	0.00	1.03	4.30	1.97	35.51
1878	16.21	22.78	10.92	2.99	0.99	0.12	0.00	0.00	0.66	2.56	2.66	0.48	60.37
1879	11.24	12.41	17.57	9.65	3.39	0.34	0.00	0.00	0.00	3.85	6.25	11.73	76.43
1880	5.47	6.00	5.50	25.63	5.97	0.00	0.00	0.00	0.00	0.18	0.37	22.67	71.79
1881	20.83	12.85	3.84	2.40	0.40	2.28	0.00	0.00	2.02	4.23	3.30	10.32	62.47
1882	8.59	5.88	10.44	7.11	2.06	0.18	0.00	0.00	0.16	7.75	7.00	3.31	52.48
1883	4.70	3.08	8.73	3.87	7.34	0.00	0.00	0.00	1.60	4.10	1.94	3.50	38.86
1884	7.53	13.80	19.94	15.07	1.52	3.65	0.00	0.01	0.80	3.54	0.03	33.73	99.62
1885	4.37	0.82	0.24	3.98	0.19	2.28	0.03	0.00	1.16	0.00	20.77	7.03	40.87
1886	18.32	1.16	7.75	15.04	1.76	0.06	0.00	0.00	0.00	3.43	1.79	6.90	56.21
1887	3.36	15.79	2.40	6.54	0.93	0.18	0.00	0.00	0.53	0.00	1.44	7.66	38.83
1888	14.21	3.14	6.02	1.18	0.38	1.56	0.04	0.00	0.41	0.00	4.67	7.99	39.60
1889	0.66	0.68	12.29	2.77	7.07	0.25	0.00	0.00	0.00	10.45	1.23	22.94	58.34
1890	19.90	8.96	14.70	3.86	4.66	0.10	......	......	......	......	......	......	......
Means	11.08	7.81	9.15	6.44	2.51	0.75	0.05	T	0.43	3.47	5.56	10.42	57.67

GILROY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	0.00	0.00	0.00	6.57	......
1874	5.22	2.04	3.15	0.95	0.16	0.00	0.00	0.00	0.00	3.55	2.09	0.04	17.20
1875	7.70	0.75	0.69	0.00	0.00	0.30	0.00	0.00	0.00	0.00	11.75	1.88	23.07
1876	6.75	3.97	5.93	0.76	0.00	0.00	0.00	0.00	0.00	1.25	0.00	0.00	18.66
1877	3.75	0.00	0.82	0.27	0.44	0.00	0.00	0.00	0.00	0.10	1.14	1.56	8.08
1878	8.98	11.48	3.24	1.62	0.00	0.00	0.00	0.00	0.00	0.88	0.70	0.42	27.32
1879	3.80	4.02	3.98	1.47	1.34	0.15	0.00	0.00	0.00	1.00	1.68	3.63	21.07
1880	2.36	1.74	1.84	9.48	0.65	0.00	0.00	0.00	0.00	0.00	0.46	12.33	28.86
1881	6.84	1.95	1.14	0.59	0.00	0.11	0.00	0.00	0.34	0.46	0.81	2.35	14.59
1882	1.28	2.17	5.61	0.72	0.25	0.10	0.00	0.00	1.46	2.22	1.64	0.38	15.83
1883	2.28	1.02	2.77	1.19	2.23	0.00	0.00	0.00	0.27	1.01	0.33	0.78	11.88
1884	2.94	6.65	7.24	3.80	0.34	1.24	0.00	0.00	0.12	1.73	0.06	8.83	32.95
1885	2.03	0.09	0.28	1.48	0.00	0.12	0.05	0.11	0.00	0.00	6.77	2.40	13.33
1886	6.09	0.32	1.17	4.32	0.22	0.00	0.00	0.00	0.00	0.78	0.33	1.09	14.32
1887	0.90	5.14	0.82	2.05	0.00	0.00	0.00	0.00	0.43	0.00	1.15	4.32	14.81
1888	5.35	0.77	3.92	0.40	0.44	0.00	0.00	0.00	0.32	0.00	3.71	2.10	17.01
1889	0.46	1.00	4.22	0.63	2.00	0.00	0.00	0.00	0.00	5.36	2.98	10.21	26.86
1890	10.50	5.62	1.89	0.64	0.55	0.00	......	......	......	......	......	......	......
Means	4.54	2.87	2.87	1.79	0.51	0.12	T	0.01	0.17	1.08	2.09	3.46	19.51

GIRARD, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.05	1.00	3.24	0.49	1.97	0.00	0.00	0.36	0.40	1.97	0.80	4.69	14.97
1890	3.05	1.20	0.25	0.40	1.05	0.00	......	......	......	......	......	......	......
Means	1.55	1.10	1.74	0.44	1.51	0.00	0.00	0.36	0.40	1.97	0.80	4.69	14.56

Monthly and annual precipitation at stations in California—Continued.

GLEN ELLEN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	1.56	0.97	16.00	1.27	5.84	0.16	0.00	0.00	0.00	11.26	6.20	19.25	62.51
1890	19.28	7.49	9.84	......	......	......	......	......	......	......	......	......	......
Means	10.42	4.23	12.92	1.27	5.84	0.16	0.00	0.00	0.00	11.26	6.20	19.25	71.55

GONZALES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Means*	1.37	1.78	1.70	1.16	0.30	0.16	0.00	0.00	0.03	0.47	1.04	1.66	10.03

* Monthly data January, 1877, to April, 1886, not obtainable, but included in monthly means.

GOSHEN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	......	......	0.60	......
1876	0.86	2.02	1.61	0.29	0.00	0.00	0.00	......	T	0.00	T	0.00	......
1879	[1.12]	0.28	0.20	0.89	0.17	0.05	0.00	0.00	0.00	0.87	0.55	1.81	[5.94]
1880	0.67	2.48	0.49	2.46	0.02	0.00	0.00	0.00	0.00	0.00	0.30	4.29	10.71
1881	2.36	0.69	1.00	1.05	0.00	0.00	0.00	0.00	0.03	0.19	0.47	0.19	5.98
1882	1.02	1.27	1.26	0.83	0.23	0.00	0.00	0.00	0.57	0.55	0.70	0.08	6.51
1883	0.00	0.17	1.70	0.52	0.45	0.00	0.00	0.00	0.09	0.50	0.00	1.56	4.90
1884	1.56	3.80	1.71	1.97	0.54	0.82	0.00	0.00	0.00	0.36	0.00	3.75	14.51
1885	0.37	0.00	1.42	1.38	0.10	0.00	0.00	0.00	0.00	0.05	4.24	1.43	8.99
1886	1.74	0.43	1.06	1.67	0.03	0.00	0.00	0.00	0.00	0.10	0.55	0.69	6.24
1887	0.35	2.66	0.56	2.85	1.10	0.00	0.00	0.00	0.50	0.17	0.12	1.18	9.49
1888	2.11	0.19	1.33	0.12	0.29	0.00	0.00	0.00	0.16	0.00	2.25	1.12	7.57
1889	0.36	0.22	1.49	0.28	1.15	0.00	0.00	0.00	0.00	4.76	0.45	2.83	11.54
1890	2.08	1.13	0.69	0.32	0.17	0.00	......	......	......	......	......	......	......
Means	1.12	1.18	1.12	1.13	0.32	0.07	0.00	0.00	0.10	0.63	0.89	1.50	7.97

GRASS VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	......	......	......	......	......	......	......	0.00	0.00	0.00	13.13	......
1873	4.01	12.50	1.39	2.32	2.56	0.00	0.00	0.00	0.00	0.83	2.99	19.01	45.61
1874	13.71	6.93	11.71	3.76	1.05	0.10	0.00	0.00	0.00	2.95	15.91	1.08	57.20
1875	15.56	1.39	4.14	0.29	1.18	2.28	0.00	0.00	0.00	0.97	16.99	7.44	50.24
1876	12.01	10.75	12.47	2.80	1.23	0.65	0.00	0.00	0.06	8.72	0.62	0.00	49.31
1877	10.18	2.44	4.79	1.14	1.40	0.74	0.00	0.00	0.00	1.21	3.78	1.74	27.42
1878	15.74	17.76	10.18	2.78	0.59	0.00	0.00	0.60	0.68	2.09	2.54	0.75	53.11
1879	10.72	11.51	18.07	7.08	3.08	0.30	0.00	0.08	0.00	2.79	6.54	8.86	69.03
1880	6.40	4.83	4.07	23.31	6.23	0.09	0.00	0.00	0.00	0.04	0.30	22.69	67.96
1881	19.20	2.50	3.33	1.85	0.05	1.50	0.00	0.00	1.25	3.71	3.52	8.21	51.12
1882	6.03	6.30	7.96	5.27	1.18	0.05	0.00	0.00	1.88	7.88	4.78	2.83	41.16
1883	3.05	2.97	9.25	2.38	5.77	0.00	0.00	0.00	1.44	3.03	1.48	2.31	31.68
1884	7.80	10.27	13.98	10.98	1.00	2.30	0.00	0.00	0.98	3.30	0.05	28.39	79.05
1885	3.65	1.76	0.83	3.17	0.16	0.90	0.00	0.00	2.65	0.00	19.27	6.36	38.75
1886	12.40	1.43	4.83	11.38	1.09	0.00	0.00	0.00	0.00	1.66	0.67	5.46	38.92
1887	3.38	15.72	1.69	6.54	0.64	0.52	0.00	0.00	0.26	0.00	1.38	6.85	36.98
1888	11.81	2.59	5.22	0.50	0.38	2.26	0.08	0.00	0.55	0.00	4.29	8.70	36.38
1889	0.64	1.08	12.95	3.87	7.21	0.40	0.00	0.00	0.00	12.49	8.76	21.08	68.48
1890	18.01	8.27	14.03	3.69	3.44	0.06	......	......	......	......	......	......	......
Means	9.68	7.06	7.83	5.17	2.12	0.68	T	T	0.54	2.87	5.22	9.16	50.33

GRAYSON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	......	0.00	0.08	0.68	1.36	......
1871	0.67	1.90	0.19	0.58	0.88	0.00	0.00	0.00	0.00	0.00	1.39	15.11	20.72
1872	2.82	2.67	0.73	0.71	0.00	0.08	0.00	0.00	0.00	0.00	0.33	4.25	11.59
1873	0.99	3.41	0.13	0.42	0.03	0.00	0.00	0.00	0.00	0.30	0.03	1.28	9.59
1874	3.55	0.80	2.23	0.38	0.24	0.00	0.00	0.00	0.00	2.17	2.44	0.34	12.15
1875	3.77	0.12	0.23	0.00	0.00	0.20	0.00	0.00	0.00	0.00	5.95	1.48	11.75

Monthly and annual precipitation at stations in California—Continued.

GRAYSON, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	3.08	2.55	2.35	0.70	0.00	0.00	0.00	0.00	0.00	1.12	0.00	0.00	9.80
1877	1.48	0.17	1.02	0.00	0.26	0.00	0.00	0.00	0.00	0.14	0.83	0.74	4.64
1878	5.16	4.41	3.82	1.19	0.13	0.00	0.00	0.00	0.00	0.52	0.30	0.66	16.19
1879	2.32	1.12	1.23	1.48	1.20	0.25	0.00	0.00	0.00	0.71	2.01	2.22	12.54
1880	0.91	0.97	0.58	4.66	0.64	0.00	0.00	0.00	0.00	0.03	0.65	5.32	13.76
1881	1.50	1.80	1.05	1.44	0.00	0.00	0.00	0.00	0.06	0.44	0.82	1.08	8.19
1882	0.70	0.70	2.22	1.70	0.05	0.00	0.00	0.00	0.00	0.70	1.47	0.12	7.66
1883	2.64	0.35	1.53	0.34	2.50	0.00	0.00	0.00	0.08	0.34	0.27	0.88	8.93
1884	1.35	3.92	5.39	3.42	0.20	1.90	0.00	0.00	......	......	......	......	....
Means	2.21	1.78	1.62	1.22	0.44	0.17	0.00	0.00	0.01	0.47	1.23	2.70	11.85

GREEN VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	......	3.18	....
1887	2.46	9.84	0.84	2.80	0.04	0.00	0.00	[0.00]	0.16	0.00	1.44	4.74	[22.32]
Means	2.46	9.84	0.84	2.80	0.04	0.00	0.00	[0.00]	0.16	0.00	1.44	3.96	[21.54]

GUADALOUPE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	......	......	......	T	8.83	3.59	....
1886	2.89	0.00	2.60	3.65	0.00	0.00	0.05	0.00	0.00	0.15	0.64	0.51	10.49
1887	0.41	5.22	0 24	1.07	......	0.00	0.00	0.00	1.74	......	......	......	....
Means	1.65	2.61	1.42	2.36	0.00	0.00	0.02	0.00	0.87	0.08	4.74	2.05	15.80

HAMPTONVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	2.50	1.50	3.52	2.27	0.40	0.20	0.00	0.00	0.00	2.23	1.09	4.24	17.95
1880	0.92	4.86	1.05	4.57	1.00	0.00	0.00	0.00	......	......	......	......	....
Means	1.71	3.18	2.28	3.42	0.70	0.10	0.00	0.00	0.00	2.23	1.09	4.24	18.95

HANFORD, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889*	0.31	0.35	1.65	0.63	......	......	......	......	......	......	......	......	....
Means	1.53	1.48	1.79	1.60	0.27	0.24	0.00	0.01	0.04	0.45	1.62	2.10	11.13

* Consolidated with the averages of 7 years observations.

HEALDSBURGH, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	0.00	0.00	2.74	20.42	....
1872	9.17	13.45	0.00	0.00	0.00	0.25	0.00	0.05	0.03	0.04	2.40	10.03	[35.42]
1873	1.87	5.17	0.00	0.00	0.00	0.00	......	......	......	......	......	......	....
1878	......	......	6.84	2.81	1.18.	0.00	0.00	0.00	0.70	0.34	0.30	......	....
Means	5.52	9.31	2.28	0.95	0.39	0.08	0.00	0.02	0.24	0.13	1.81	15.22	35.95

HILL'S FERRY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	......	......	......	......	......	......	......	......	0.00	0.00	0.50	4.65	....
1881	1.36	1.52	0.80	1.03	0.00	0.00	0.00	0.00	0.00	0.12	0.62	0.71	6.16
1882	0.85	0.95	2.62	1.90	0.70	0.00	0.00	0.00	0.15	0.57	1.05	1.80	10.59
1883	0.30	0.22	2.45	0.18	2.56	0.00	0.00	0.00	0.63	0.59	0.09	0.70	7.72
1884	2.16	5.76	3.94	2.77	0.92	1.64	0.00	0.00	......	......	......	......	....
Means	1.17	2.11	2.45	1.47	1.04	0.41	0.00	0.00	0.20	0.32	0.56	1.96	11.69

Monthly and annual precipitation at stations in California—Continued.

HOLLISTER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	0.00	0.00	0.00	3.49	......
1874	4.04	0.96	2.51	0.36	0.37	0.00	0.00	0.00	0.00	2.33	1.15	0.00	11.72
1875	5.10	0.16	0.50	0.00	0.00	0.13	0.00	0.00	0.00	0.00	7.68	0.00	13.57
1876	2.13	2.77	2.63	0.18	0.18	0.00	0.00	0.00	0.00	0.88	0.00	0.00	8.77
1877	1.83	0.25	0.53	0.78	0.42	0.00	0.00	0.00	0.00	0.00	1.03	1.54	6. 8
1878	5.98	6.61	1.56	1.40	0.00	0.00	0.00	0.00	0.00	0.29	0.20	0.36	16.40
1879	1 83	1.99	1.90	1.53	0.64	0.07	0.00	0.00	0.00	0.95	1.06	2.51	12.48
1880	1.20	0.85	1.83	3.47	0.51	0.00	0.00	0.00	0.00	0.00	0.80	5.52	14.18
1881	2.59	1.81	1.05	0.61	0.00	0.10	0.00	0.00	0.24	0.20	0.64	1.08	8.32
1882	1.78	1.50	3.46	1.20	0.10	0.24	0.00	0.00	0.45	1.32	0.95	0.23	11.23
1883	1.44	0.86	1.81	0.99	1.54	0.00	0.00	0.00	0.25	0.68	0.35	0.90	8.85
1884	1.05	3.80	4.38	2.66	0.62	1.85	0.00	0.05	0.00	1.30	0.00	3.62	19.33
1885	0.58	0.17	0.35	0.45	0.00	0.23	0.27	0.00	0.00	0.00	4.91	1.12	8.08
1886	3.93	0.22	1.29	2.55	0.15	0.00	0.00	0.00	0.00	0.38	0.42	0.54	9.48
1887	0.57	3.63	.0.55	1.32	0.04	0.02	0.00	0.00	0.43	0.00	0.60	1.54	8.70
1888	2.61	0.97	2.75	0.40	0.80	0.02	0.00	0.00	0.20	0.00	2.20	2.00	11.95
1889	0.88	0.87	3.06	0.81	1.26	0.00	0.00	0.00	0.00	2.91	2.09	7.35	19.23
1890	5.70	2.15	1.45	0.52	0.31	0.00	......	......	......	......	......	......	......
Means	2.54	1.74	1.86	1.13	0.41	0.16	0.02	T	0.09	0.66	1.42	1.87	11.90

HORNBROOK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	......	......	......	......	......	......	......	0.00	0.15	0.12	0.92	2.58	......
1888	1.16	1.08	0.61	T	2.58	2.74	0.15	......	......	0.00	......	......	......
1889	0.60	0.10	2.07	0.43	2.34	0.00	0.00	0.00	0.00	1.95	2.93	2.92	13.34
1890	6.00	9.91	0.70	......	0.44	0.60	......	......	......	......	......	......	......
Means	2.59	3.70	1.13	0.22	1.79	1.11	0.08	0.00	0.08	0.69	1.92	2.75	16.06

HUMBOLDT LIGHT-HOUSE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	0.00	0.48	13.26	5.68	......
1876	6.62	6.58	8.54	4.88	2.09	0.40	0.05	0.18	0.50	3.39	0.64	......	......
1877	4.57	0.27	3.13	0.31	1.66	1.46	0.00	0.00	0.00	4.08	......	5.42	......
1878	10.92	8.21	5.18	......	0.35	......	0.07	......	1.25	......	1.88	2.00	......
1879	4.35	4.29	8.83	1.82	1.29	0.12	0.10	0.21	0.30	2.34	5.21	9.43	38.29
1880	5.77	1.20	4.05	6.48	2.15	0.03	0.00	0.00	0.00	0.73	0.25	6.52	27.18
1881	10.92	8.89	3.41	0.00	0.00	0.00	0.08	0.00	0.13	4.37	3.08	6.77	37.65
1882	6.17	9.09	5.17	4.45	0.75	0.00	0.00	0.00	1.00	......	......	......	......
1883	......	......	1.72	4.13	1.50	0.00	0.00	0.00	1.75	1.11	0.86	2.58	......
1884	2.95	2.96	5.88	4.98	0.22	1.03	0.00	0.00	1.15	0.55	0.84	7.44	28.00
1885	4.62	2.97	0.15	1.99	0.61	0.27	0.00	0.00	1.57	1.55	13.56	7.00	34.32
1886	5.93	1.97	3.15	6.53	1.18	0.00	0.02	0.00	0.00	2.23	0.85	8.19	30.05
1887	7.32	7.41	2.32	5.44	2.31	2.09	0.03	0.04	0.30	0.39	2.63	5.20	35.18
1888	12.39	1.30	3.79	0.65	0.85	4.22	0.37	0.00	0.04	0.87	2.84	6.20	33.52
1889	3.48	1.79	6.57	3.39	6.28	0.47	0.00	0.00	0.39	9.02	3.76	13.00	48.15
1890	16.34	12.87	11.76	2.39	1.16	0.92	0.00	0.00	1.11	0.02	0.43	......	......
Means	6.53	5.19	5.10	3.38	1.11	0.43	0.04	0.06	0.55	2.36	3.60	5.49	33.84

HUMBOLDT, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1854	4.83	6.80	5.14	5.58	0.12	0.69	0.00	0.00	0.00	3.69	0.98	1.18	29.01
1855	3.30	4.45	6.80	5.40	2.80	1.60	0.00	0.00	1.36	0.52	3.22	9.52	38.97
1856	3.91	1.97	1.21	4.39	1.31	0.61	0.00	0.00	0.20	2.69	3.45	7.50	27.24
1857	7.67	5.90	4.60	0.06	1.43	0.50	0.00	0.00	0.55	0.57	3.13	7.80	32.21
1858	6.25	8.45	5.21	2.67	1.30	0.47	0.00	0.45	0.40	3.77	3.38	9.33	41.68
1859	10.32	10.10	6.90	1.54	1.10	0.08	0.15	0.00	1.94	1.17	6.57	2.88	42.75
1860	3.63	3.83	5.40	3.46	3.83	0.00	0.90	0.00	0.18	4.53	3.81	11.34	40.91
1861	4.63	8.29	3.90	2.89	0.72	0.73	0.00	0.08	0.00	1.58	[3.79]	[7.14]	[33.75]
1862	......	......	......	......	......	......	0.00	0.00	0.10	0.48	T	2.70	......
1863	6.20	6.41	5.51	4.48	0.80	0.20	0.87	0.14	0.75	0.47	3.09	8.57	37.49
1864	6.16	1.95	3.73	2.31	0.23	0.32	0.00	[0.06]	0.01	0.02	0.22	11.81	[26.82]
1865	1.82	4.99	4.23	0.00	0.01	0.00	0.00	0.00	1.62	2.00	10.90	5.93	31.50
1866	10.62	4.35	10.94	1.07	......	......	......	......	0.00	0.30	6.72	......	......
Means	5.78	5.62	5.30	2.82	1.24	0.47	0.16	0.06	0.55	1.68	3.79	7.14	34.61

Monthly and annual precipitation at stations in California—**Continued.**

HYDESVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	......	......	......	......	......	......	......	......	......	......	1.68	5.14	......
1884	4.43	4.30	7.03	6.28	0.50	0.63	0.05	0.02	1.02	0.98	0.69	12.01	37.94
1885	4.61	3.43	0.24	1.76	1.00	1.00	0.00	0.00	1.05	[2.60]	[2.30]	9.31	[27.30]
1886	8.73	3.56	3.13	9.15	1.28	0.00	0.36	0.00	0.00	3.06	1.97	7.23	38.47
1887	8.70	8.48	2.21	5.30	2.21	0.94	0.00	0.00	0.23	0.30	1.96	6.65	36.98
1888	14.81	1.85	3.45	0.83	1.06	3.92	0.27	0.00	0.12	0.74	3.03	4.98	35.06
1889	4.55	2.31	8.91	[4.16]	5.83	0.40	0.15	0.20	0.35	7.92	4.47	12.66	[51.91]
1890	17.31	10.13	8.62	1.63	1.58	0.67	......	......	......	......	......	......	......
Means	9.02	4.87	4.80	4.16	1.92	1.08	0.14	0.04	0.46	2.60	2.30	8.28	39.67

INDEPENDENCE, CAMP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1865	......	......	......	......	......	......	......	......	......	......	0.00	0.65	......
1866	2.42	0.00	0.00	0.16	[0.27]	[0.04]	[0.11]	[0.22]	0.00	[0.32]	0.00	[2.26]	[5.80]
1867	0.00	1.63	4.76	0.53	0.76	0.00	0.01	1.15	[0.07]	[0.32]	[0.21]	12.19	[21.63]
1868	5.46	0.00	0.00	0.40	0.71	0.00	0.10	[0.22]	0.00	0.74	0.44	1.17	[9.24]
1869	0.16	0.00	0.32	0.11	0.36	0.00	0.03	0.00	0.00	0.00	0.14	0.00	1.12
1870	0.20	1.36	0.00	[0.21]	[0.27]	0.00	0.35	0.10	0.00	1.10	0.00	1.00	[4.59]
1871	0.00	1.28	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.65	4.70	6.93
1872	0.00	0.30	0.28	0.55	0.18	0.00	0.28	0.12	0.00	0.00	0.00	1.18	2.89
1873	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.05	0.10	0.00	0.00	3.40	3.95
1874	2.40	1.00	0.00	0.00	0.00	0.01	0.15	0.00	0.40	0.80	0.40	0.00	5.16
1875	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	T	0.66	0.62	3.02
1876	1.51	0.70	0.87	T	0.00	0.15	0.19	0.56	0.16	0.26	0.00	0.00	4.40
1877	0.76	0.00	T	0.59	0.69	0.00	......	......	......	......	......	......	......
Means	1.22	0.56	0.52	0.21	0.27	0.04	0.11	0.22	0.07	0.32	0.21	2.26	6.01

INDIAN VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	7.75	13.05	3.30	7.00	10.50	0.00	......	0.00	......	0.50	0.30	6.75	......
1873	......	3.60	......	......	......	......	......	......	......	......	......	......	......
Means	7.75	8.32	3.30	7.00	0.50	0.00	......	0.00	......	0.50	0.30	6.75	......

INDIO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	......	0.00	1.98	......
1878	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.10
1879	0.60	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	1.30
1880	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.70
1881	3.45	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.95
1882	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	2.50
1883	0.80	1.13	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.86	2.96
1884	0.00	3.16	0.62	0.41	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.70	5.38
1885	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	1.00
1886	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.12
1887	0.00	0.93	0.00	0.30	0.00	0.00	0.00	T	0.05	0.15	0.00	0.00	1.43
1888	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	[0.07]	1.10	1.11	[3.03]
1889	0.57	[0.46]	1.05	0.00	0.00	0.00	0.00	0.95	0.00	0.60	0.01	3.29	[6.93]
1890	[0.65]	0.06	0.00	0.00	0.00	0.00	......	......	......	......	......	......	......
Means	0.65	0.46	0.18	0.06	0.04	0.00	0.00	0.08	T	0.07	0.27	0.74	2.55

IONE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	0.00	0.00	0.00	0.46	1.35	0.84	......
1878	5.28	7.02	3.33	1.10	0.19	0.00	0.00	0.00	0.07	0.23	0.91	0.50	18.63
1879	2.82	3.76	3.88	2.99	1.69	0.15	0.00	0.00	0.00	1.59	2.84	3.05	22.77
1880	1.33	2.39	1.60	7.39	1.60	0.00	0.00	0.00	0.00	T	0.42	6.68	21.41

***Monthly and annual precipitation at stations in California*—Continued.**

IONE, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	3.45	3.07	1.31	1.97	0.00	0.33	0.00	0.00	0.10	0.50	1.41	3.54	15.71
1882	2.87	2.28	5.10	3.00	0.27	0.01	0.00	0.00	0.06	3.04	0.84	0.25	17.75
1883	2.57	0.80	3.57	1.91	3.04	0.00	0.00	0.00	1.14	1.16	1.15	1.70	17.04
1884	2.81	6.13	7.87	6.51	0.39	2.03	0.00	0.00	0.20	1.82	0.00	8.22	35.98
1885	1.74	0.00	0.00	1.55	0.00	0.43	0.00	0.00	0.00	0.00	8.45	2.17	14.34
1886	5.15	0.07	2.40	6.06	0.84	0.00	0.00	0.00	0.00	1.20	0.70	1.64	18.06
1887	0.83	7.26	1.55	1.41	0.10	0.00	0.00	0.00	0.67	0.00	0.25	3.[illegible]7	15.27
1888	4.60	0.58	1.16	0.70	0.22	0.00	0.00	0.00	0.36	0.00	[1.79]	2.48	[11.89]
1889	0.12	0.30	5.33	0.25	2.58	T	0.00	0.00	0.00	4.71	3.15	6.41	22.85
1890	4.94	3.75	4.87	2.50	2.05	0.00	......	......	......	......	......	......	....
Means	2.96	2.88	3.23	2.87	0.99	0.23	0.00	0.00	0.20	1.13	1.79	3.13	19.41

IOWA HILL (STRAWBERRY FLAT), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	12.50	12.50	18.25	7.87	3.25	0.25	0.00	0.00	0.00	3.50	3.63	13.35	75.10
1880	5.00	6.10	7.88	18.87	6.25	0.00	0.00	0.00	0.00	0.75	0.75	20.80	66.40
1881	20.75	10.50	4.62	3.15	0.13	2.12	0.00	0.00	2.50	4.25	3.90	10.56	62.48
1882	8.92	6.80	10.43	7.59	1.55	0.73	0.00	0.00	0.35	8.50	6.63	2.69	54.19
1883	4.37	4.24	10.63	3.67	7.22	0.00	0.00	0.00	0.75	4.54	2.02	3.75	41.19
1884	8.05	11.26	16.50	13.22	1.60	2.52	0.00	0.00	1.60	2.43	0.00	24.22	81.40
1885	3.03	1.48	0.68	2.93	0.05	1.60	0.00	0.00	1.20	0.00	15.82	6.14	32.93
1886	10.89	0.68	6.46	12.19	1.87	0.00	0.00	T	0.00	2.28	0.80	5.75	40.92
1887	*3.61	15.61	2.23	6.55	0.78	0.00	0.00	0.05	0.48	0.00	0.95	6.52	36.78
1888	11.73	2.41	4.59	1.47	1.14	2.60	0.06	T	0.35	0.00	3.78	8.14	36.27
1889	0.58	0.71	12.12	4.20	8.26	0.22	0.00	0.00	0.00	9.20	8.49	21.04	64.82
1890	20.87	10.74	14.12	3.02	3.48	0.08	......	......	......	......	......	......	....
Means	9.19	6.92	9.04	7.06	2.96	0.84	0.01	T	0.66	3.22	4.25	11.18	55.33

JACKSON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	0.00	0.70	2.00	1.45	....
1878	8.54	13.04	5.55	1.97	0.21	0.04	0.00	0.00	0.05	0.97	0.86	0.70	31.96
1879	5.56	5.26	6.97	4.97	2.19	0.25	0.00	0.00	0.00	2.92	4.33	5.38	37.83
1880	2.30	3.44	3.51	13.59	2.41	0.00	0.00	0.00	0.00	0.15	0.60	10.47	36.47
1881	8.86	4.77	2.11	2.96	0.00	0.05	0.00	0.00	0.58	1.38	1.82	5.32	27.85
1882	3.86	3.89	7.71	3.72	0.49	0.10	0.00	0.00	0.75	5.62	3.34	1.44	30.92
1883	3.61	1.95	3.85	2.25	4.63	0.00	0.00	0.00	0.90	1.43	1.48	1.59	21.69
1884	4.02	8.58	9.41	7.65	0.99	1.85	0.00	0.00	0.26	1.70	0.10	14.64	49.20
1885	1.89	0.27	0.26	1.34	0.15	0.59	0.00	0.00	0.23	0.00	12.80	2.78	20.31
1886	7.97	0.75	4.54	8.04	0.00	0.00	......	......	......	......	......	......	....
Means	5.18	4.66	4.88	5.17	1.23	0.32	0.00	0.00	0.31	1.65	3.04	4.86	31.30

JOLON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	......	......	......	......	......	......	......	......	0.50	0.25	2.05	2.75	....
1883	1.25	0.85	5.05	0.75	2.45	0.00	0.00	0.00	0.00	0.62	0.00	1.00	11.97
1884	5.75	7.56	9.02	3.35	0.50	0.60	0.00	0.25	0.00	2.60	0.60	4.09	34.32
1885	2.31	T	T	2.15	0.00	0.00	0.00	0.00	0.90	0.10	13.15	2.42	20.13
1886	8.51	0.86	2.37	4.01	0.00	0.00	0.00	0.00	0.00	0.35	0.48	0.61	17.19
1887	0.57	8.52	0.38	1.11	0.40	T	0.00	0.00	0.21	0.21	0.94	4.42	16.76
1888	5.64	0.16	4.81	0.00	0.37	0.01	T	0.00	0.60	0.00	5.64	4.48	21.71
1889	1.26	1.40	9.65	0.59	1.12	0.00	0.00	0.00	0.00	7.38	4.09	11.42	36.91
1890	6.58	4.59	2.50	0.05	0.30	0.00	......	......	......	......	......	......	....
Means	3.98	2.99	4.22	1.50	0.64	0.08	T	0.04	0.16	1.44	3.37	3.90	22.32

Monthly and annual precipitation at stations in California—Continued.

JONES, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1853	3.78	1.38	3.39	1.02	1.17	0.41	0.13	[0.10]	[0.20]	0.46	4.47	1.19	[17.72]
1854	0.54	2.62	0.75	1.99	0.21	0.63	0.20	0.21	0.00	4.18	0.48	1.13	12.94
1855	1.58	3.83	5.24	1.50	0.87	0.08	[0.11]	0.00	[0.20]	[1.40]	1.77	6.47	[23.05]
1856	1.59	0.42	1.18	1.84	2.77	0.60	0.00	0.20	0.00	0.13	1.78	8.93	19.44
1857	3.62	7.59	3.35	0.00	0.69	1.86	[0.11]	0.00	0.60	0.80	4.47	4.24	[27.33]
1858	6.15	8.78	3.69	1.15	1.55	0.60	......	......	......	......	......	......	......
Means	2.88	4.10	2.77	1.25	1.21	0.70	0.11	0.10	0.20	1.40	2.59	4.39	21.70

JULIAN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	......	8.81	1.67	......
1876	9.94	6.39	......	......	......	......	......	......	......	......	......	......	......
1879	......	......	......	......	......	......	......	......	0.00	0.00	2.13	4.50	......
1880	1.50	5.75	9.25	7.50	0.00	0.00	0.00	0.00	0.00	0.00	2.25	2.75	29.00
1881	5.13	4.88	8.13	2.75	0.00	0.00	0.00	0.00	0.00	0.00	1.88	6.88	29.65
1882	5.13	3.38	7.13	4.88	0.00	0.00	0.00	0.00	0.00	0.00	5.13	6.25	31.90
1883	10.04	6.63	9.13	4.13	0.00	0.00	0.00	0.00	0.00	2.75	0.00	6.00	38.68
1884	2.25	20.63	15.63	10.63	3.63	0.00	0.00	0.00	......	......	......	......	......
Means*	5.66	7.94	9.85	5.98	0.73	0.00	0.00	0.00	0.00	0.55	3.37	4.68	33.76

* Data for 1875 and 1876 were added to the table subsequent to writing the text of this report.

KEELER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	......	0.20	1.60	0.89	0.00	0.20	0.00	0.00	0.00	0.70	......
1885	0.00	0.00	0.12	0.82	0.00	0.08	0.00	0.11	0.00	0.25	0.65	0.36	2.39
1886	0.49	0.14	0.60	0.40	0.00	0.00	0.14	0.08	0.00	0.01	0.08	0.00	1.94
1887	T	0.93	0.00	1.14	0.04	T	0.52	0.00	1.08	0.84	0.01	0.48	5.04
1888	0.70	1.21	0.30	0.12	0.30	0.20	0.17	0.10	0.06	0.00	1.68	0.82	5.66
1889	0.04	T	0.52	0.12	0.06	0.01	0.00	T	0.08	0.56	0.05	0.56	2.00
1890	0.42	0.01	T	0.10	0.20	0.00	......	......	......	......	......	......	......
Means	0.28	0.38	0.26	0.41	0.31	0.16	0.14	0.08	0.20	0.28	0.41	0.49	3.40

KEENE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	0.00	0.00	0.00	0.00	0.00	1.75	......
1878	4.37	7.49	2.72	2.10	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.74	17.89
1879	0.67	0.55	0.83	1.97	0.00	0.00	0.00	0.00	0.00	0.50	1.43	5.37	11.32
1880	2.36	1.21	1.15	4.07	0.12	0.00	0.00	0.00	0.00	0.22	0.26	3.43	12.82
1881	2.12	2.42	1.89	0.72	0.19	0.00	0.00	0.00	0.58	0.21	0.95	0.30	9.38
1882	0.85	2.57	1.42	1.44	0.60	0.10	0.00	0.00	0.00	1.40	0.25	0.47	9.10
1883	0.17	3.31	2.55	2.01	0.86	0.00	0.00	0.00	0.00	0.45	0.16	1.06	10.60
1884	2.14	7.46	4.80	3.16	3.23	1.79	0.00	0.00	0.00	2.55	0.36	5.22	30.71
1885	0.30	0.13	0.65	1.47	0.11	0.10	0.06	T	0.00	0.28	3.73	0.46	7.29
1886	2.02	0.64	2.93	2.84	0.00	T	T	0.02	0.00	T	1.95	1.10	11.50
1887	0.51	3.20	0.92	2.73	T	0.20	T	0.00	0.12	1.32	0.50	1.72	11.22
1888	1.30	1.70	2.69	0.78	2.03	0.00	0.68	0.00	0.00	0.00	1.28	2.29	12.75
1889	0.36	[2.72]	3.74	0.95	1.77	0.00	0.00	0.28	0.42	2.23	1.30	5.17	[18.94]
1890	3.15	1.97	1.98	0.50	1.30	0.00	......	......	......	......	......	......	......
Means	1.56	2.72	2.17	1.91	0.79	0.17	0.06	0.02	0.09	0.74	0.94	2.24	13.41

KINGSBURGH, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	0.41	0.51	0.97	0.28	0.03	0.00	0.00	0.00	1.03	0.48	1.89	......
1880	0.44	2.54	0.43	3.05	0.24	0.00	0.00	0.00	0.00	T	0.30	4.57	11.57
1881	2.33	0.69	0.98	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	4.87
1882	0.56	1.27	1.31	1.27	0.08	0.00	0.00	0.00	0.25	0.19	0.57	0.03	5.53
1883	0.00	0.45	1.68	1.14	1.53	0.00	0.00	0.00	T	0.81	0.00	0.30	5.91
1884	2.47	4.09	4.09	2.17	1.00	0.92	0.00	0.00	0.00	0.26	0.09	4.56	19.65
1885	0.60	0.00	0.69	1.12	0.00	0.00	0.00	0.00	0.00	0.10	6.22	2.44	11.17
1886	2.04	0.24	1.03	2.45	0.00	0.00	0.00	0.00	0.00	0.20	0.58	0.43	6.97

Monthly and annual precipitation at stations in California—Continued.

KINGSBURGH, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	0.36	2.48	0.13	2.10	0.42	0.00	0.00	0.00	0.53	0.00	0.15	1.16	7.33
1888	2.29	0.29	1.64	0.00	0.21	0.00	0.00	0.00	0.08	[0.63]	1.78	1.83	[8.75]
1889	0.29	0.35	2.28	0.47	0.72	0.00	0.00	0.00	0.00	3.73	0.98	3.61	12.46
1890	2.81	1.43	0.83	0.42	0.57	0.00							
Means	1.29	1.19	1.30	1.32	0.42	0.08	0.00	0.00	0.08	0.63	1.04	1.90	9.25

KINGSBURGH BRIDGE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881											0.60	0.25	
1882	0.30	2.10	2.12	2.13	0.17	0.00	0.00	0.00	0.00	1.19	1.12	0.00	9.13
1883	0.18	0.72	3.50	1.81	1.90	0.00	0.00	0.00	0.25	0.68	0.19	0.66	9.89
1884	4.90	6.47	5.92	3.67	0.60	1.19	0.00	0.00					
Means	1.79	3.10	3.85	2.54	0.89	0.40	0.00	0.00	0.12	0.94	0.64	0.30	14.57

KINGS CITY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886										0.14	0.36	0.03	
1887	0.38	5.08	0.18	0.58	0.02	0.09	0.00	0.00	0.05	0.05	0.31	1.99	8.74
1888	2.85	0.70	2.76	0.10	0.01	0.00	0.00	0.00	0.72	0.00	[1.14]	2.52	[10.80]
1889	0.92	1.33	6.13	0.29	0.48	0.09	0.00	0.00	0.00	4.17	2.74	8.07	24.13
1890	4.34	3.01	1.13	0.00	0.13	0.00							
Means	2.12	2.53	2.55	0.24	0.16	0.02	0.00	0.00	0.26	1.09	1.14	3.15	13.26

KING'S RIVER (CENTERVILLE), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878												0.26	
1879	1.63	0.66	1.32	2.45	0.00	0.11	0.00	0.00	0.00	1.58	1.21	3.81	12.80
1880	1.36	3.83	0.88	3.97	0.00	0.00	0.00	0.00	0.00	0.30	0.65	7.91	18.90
1881	4.63	1.41	1.21	1.12	0.60	T	0.00	0.00	T	0.23	0.60	0.39	10.19
1882	1.13	3.15	2.96	2.57	T	0.00	0.00	0.00	0.20	1.50	1.34	0.61	13.46
1883	0.92	0.53	4.52	1.31	1.75	0.00	0.00	0.00	0.10	1.01	0.37	0.79	11.30
1884	4.86	8.39	6.90	5.23	2.53	1.73	0.00	T					
Means	2.42	3.00	2.96	2.78	0.81	0.31	0.00	T	0.06	0.92	0.83	2.30	16.39

KNIGHT'S LANDING, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877									0.00	0.00	0.00	0.00	
1878	0.00	5.64	2.30	1.48	0.25	0.00	0.00	0.00	0.16	0.24	0.71	0.10	
1879	2.39	2.86	3.42	2.83	1.07	0.16	0.00	0.05	0.00	0.21	1.77	3.93	18.69
1880	1.25	1.25	0.76	6.64	0.40	0.00	0.00	0.00	0.00	0.00	0.00	6.99	17.29
1881	4.22	2.87	1.11	1.23	0.25	0.89	0.00	0.00	0.42	0.33	2.04	2.17	15.53
1882	1.30	1.75	2.19	1.33	0.16	0.16	0.00	0.00	0.71	1.51	2.58	0.31	12.03
1883	1.48	0.66	3.11	0.87	3.32	0.00	0.00	0.00	0.00	1.50	0.54	0.45	11.93
1884	3.68	3.53	4.88	3.15	0.00	1.89	0.00	0.00	0.35	1.45	0.00	5.56	24.49
1885	1.42	0.00	0.48	1.59	0.00	0.00	0.00	0.09	0.00	0.00	8.00	4.93	16.42
1886	5.53	0.00	1.37	4.25	0.00	0.00	0.00	0.60	0.00	0.23	0.00	1.60	12.98
1887	1.00	6.60	0.75	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.57	3.26	14.48
1888	4.18	0.91	2.51	0.07	[0.80]	0.34	0.02	0.00	0.81	0.00	5.72	4.82	[20.18]
1889	[2.84]	0.28	6.53	0.42	2.17	0.41	0.00	0.00	0.00	5.28	3.93	8.78	[30.64]
1890	4.80	4.18	3.37	1.02	1.93	0.00							
Means	2.84	2.35	2.52	2.09	0.80	0.30	T	T	0.19	0.82	1.99	3.30	17.20

KNOXVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883									0.00	1.92	0.85	1.54	
1884	4.06	8.09	11.72	6.19	0.16	0.00	0.00	0.00					
Means	4.06	8.09	11.72	6.19	0.16	0.00	0.00	0.00	0.00	1.92	0.85	0.54	34.53

***Monthly and annual precipitation at stations in California*—Continued.**

KONO TAYEE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	0.00	0.00	0.00	0.00	....
1874	1.88	3.60	4.62	2.05	0.45	0.00	0.00	0.00	0.00	3.70	6.25	0.29	22.84
1875	9.16	0.38	0.92	0.00	0.84	0.42	0.00	0.00	0.00	1.17	6.96	5.12	24.97
1876	6.05	4.22	8.34	0.10	0.00	0.00	0.00	0.00	0.00	0.20	3.50	0.00	22.41
1877	3.17	2.81	1.40	0.50	0.00	0.50	0.00	0.00	0.73	1.65	2.23	1.98	14.97
1878	14.16	11.04	4.60	......	......	......	0.00	0.07	0.00	0.41	1.37	0.33	....
1879	3.01	3.41	9.15	0.47	0.64	0.00	0.00	0.05	0.00	0.91	3.57	5.72	26.93
1880	6.24	3.85	4.74	0.48	0.25	0.00	0.00	0.00	0.00	0.00	3.54	1.92	21.02
1881	5.50	6.58	0.64	0.95	0.12	0.25	0.00	0.00	0.00	0.63	2.90	1.77	19.34
1882	1.74	3.20	2.34	1.54	0.40	0.00	0.00	0.00	0.42	1.64	4.42	0.98	16.68
1883	1.40	0.60	3.81	0.95	2.41	0.00	0.00	0.00	0.70	0.99	0.39	0.70	11.95
1884	4.17	1.91	5.35	3.88	0.06	4.08	0.00	0.00	......	......	......	......	....
Means	5.13	3.78	4.17	1.09	0.52	0.52	0.00	0.01	0.17	1.03	3.19	1.71	21.32

LA GRANGE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	......	......	......	......	......	......	0.00	0.00	0.00	0.00	2.55	7.91	....
1868	3.84	3.63	4.67	1.57	1.32	0.00	0.00	0.00	0.00	0.30	0.20	3.25	18.78
1869	4.00	5.13	3.07	1.06	1.15	0.00	0.00	0.00	0.00	1.56	0.69	0.69	[17.15]
1870	1.87	4.32	1.43	1.85	0.43	0.00	0.00	0.00	0.00	0.50	0.25	2.10	12.75
1871	2.19	2.13	0.31	2.55	0.43	0.00	0.00	0.00	0.00	0.00	2.25	6.94	16.80
1872	2.69	5.32	2.18	0.80	0.30	0.00	0.00	0.00	0.00	0.00	0.12	7.69	19.10
1873	1.12	4.67	0.30	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.14	4.19	10.87
1874	3.92	2.32	2.91	1.15	0.00	0.00	0.00	0.00	0.15	3.52	3.54	0.11	17.62
1875	2.30	0.00	0.41	0.26	0.00	0.00	0.00	0.00	0.00	0.40	10.58	1.98	15.93
1876	5.63	2.25	3.88	0.67	0.48	0.00	0.00	0.00	0.00	0.55	0.48	0.00	13.94
1877	2.59	0.45	0.61	0.00	1.06	0.00	0.00	0.00	0.00	0.68	1.18	1.12	7.69
1878	5.58	5.54	3.09	1.67	0.04	0.00	0.00	0.00	0.05	0.90	0.50	0.20	17.57
1879	1.91	2.39	2.16	2.30	0.98	0.15	0.00	0.00	2.35	1.61	2.48	0.60	16.93
1880	2.68	1.70	6.04	2.04	0.00	0.00	0.00	0.00	0.16	0.92	4.21	4.58	22.33
1881	3.52	1.09	0.60	0.04	0.00	0.00	0.00	0.00	0.75	0.60	1.13	1.96	9.69
1882	1.10	1.67	4.72	2.25	0.33	0.00	0.00	0.00	0.51	1.54	1.33	0.51	13.96
1883	2.93	1.35	3.58	1.33	2.90	0.00	0.00	0.00	0.55	1.20	0.84	0.70	15.38
1884	2.85	6.07	6.06	4.90	0.79	1.05	0.00	0.00	0.95	1.85	0.02	6.77	31.31
1885	0.88	0.03	0.17	1.19	0.00	0.03	0.00	0.00	0.00	0.00	10.60	1.48	14.38
1886	3.79	0.32	3.24	4.56	0.10	0.00	[0.00]	0.00	0.00	0.22	1.20	0.75	[14.18]
1887	0.51	5.11	0.40	2.82	0.00	0.00	[0.00]	T	0.37	T	0.20	[4.02]	[13.43]
1888	2.84	0.66	2.63	0.17	0.52	T	0.02	T	0.32	0.00	3.29	3.67	14.12
1889	0.17	0.61	4.24	0.58	1.64	T	0.00	T	[0.17]	4.00	4.59	7.64	[23.64]
1890	5.17	3.77	2.13	1.45	1.42	0.00	......	......	......	......	......	......	....
Means	2.79	2.63	2.56	1.55	0.60	0.05	T	T	0.28	0.88	2.28	2.99	16.61

LAGUNA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	2.10	1.36	0.17	0.00	1.87	......	0.44	2.71	0.60	....
1886	......	......	......	......	......	0.00	0.21	2.43	0.00	0.29	1.40	0.00	....
Means	......	......	......	2.10	1.36	0.08	0.10	2.15	0.00	0.36	2.06	0.30	....

LANGWORTH, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	......	......	......	......	......	......	......	0.00	0.30	0.73	1.10	....
1882	1.51	0.53	3.41	1.56	0.25	0.05	0.00	0.00	......	......	......	......	....
1883	......	......	......	......	......	......	0.00	0.00	0.50	1.74	0.00	1.14	....
1884	2.04	4.03	5.38	3.92	0.31	0.79	0.00	0.00	0.12	1.10	0.04	6.07	23.80
1885	1.23	0.00	0.62	1.08	0.00	0.09	0.00	0.00	0.00	0.00	8.42	1.90	13.34
1886	4.74	0.08	2.53	4.78	0.10	0.00	......	......	......	0.33	1.16	0.82	....
1887	0.28	3.15	0.23	1.86	......	......	......	.....	......	......	......	......	....
Means	1.96	1.56	2.43	2.64	0.16	0.23	0.00	0.00	0.16	0.69	2.07	2.21	14.11

***Monthly and annual precipitation at stations in California*—Continued.**

LATHROP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	0.00	0.00	0.00	0.14	0.44	1.14	......
1878	4.65	5.45	1.92	0.86	0.00	0.00	0.00	0.00	0.00	0.51	0.43	0.54	14.36
1879	2.64	1.90	1.71	2.05	1.00	0.21	0.00	0.00	0.00	0.31	1.72	1.67	13.21
1880	1.34	0.97	0.76	5.16	0.68	0.00	0.00	0.00	0.00	0.00	0.53	5.79	15.23
1881	2.67	2.22	0.83	1.30	0.00	0.00	0.00	0.00	0.18	0.00	0.62	1.80	9.62
1882	0.92	0.95	2.95	1.71	0.00	0.00	0.00	0.00	0.53	1.46	1.16	0.37	9.15
1883	2.00	0.28	1.90	0.55	3.62	0.00	0.00	0.00	0.08	0.75	0.56	0.84	10.58
1884	1.14	4.17	4.86	2.57	0.36	1.02	0.00	0.00	0.10	0.82	0.00	2.97	18.01
1885	0.78	T	0.19	0.31	0.02	0.20	0.02	0.00	0.00	0.00	6.46	0.99	8.97
1886	3.51	0.01	1.08	2.46	0.00	0.00	0.00	0.00	0.00	0.21	0.83	0.40	68.50
1887	0.21	2.84	0.14	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.30	2.27	7.01
1888	2.46	0.41	1.09	0.49	[0.57]	0.00	0.00	0.00	0.78	0.00	2.60	3.21	[11.61]
1889	0.32	0.48	2.68	0.33	0.85	0.00	0.00	0.00	0.00	2.59	2.51	7.60	17.36
1890	4.30	2.15	1.67	0.63	0.34	0.00	......	......	......	......	......	......	......
Means	2.07	1.68	1.61	1.51	0.57	0.11	0.00	0.00	0.13	0.52	1.40	2.28	11.88

LAUREL, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	0.03	0.00	0.00	6.59	[5.00]	......
1889	0.62	1.47	17.77	1.39	4.41	0.00	0.00	0.00	0.00	20.48	6.18	31.79	84.14
1890	24.52	9.10	7.40	2.52	2.50	0.00	......	......	......	......	......	......	......
Means	12.57	5.28	12.58	1.96	3.47	0.00	0.00	0.02	0.00	10.24	6.38	31.79	84.29

LAYTONVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	......	......	......	......	......	......	......	......	......	......	1.68	2.95	......
1884	5.90	3.84	6.22	8.14	0.41	0.29	1.84	0.00	0.63	1.06	0.71	20.08	[49.12]
1885	4.94	3.22	0.22	1.81	0.08	0.39	0.00	0.00	0.01	1.07	18.91	7.45	[38.13]
1886	9.35	0.30	3.43	......	......	......	......	......	......	......	......	......	......
Means	6.76	2.45	3.43	4.97	0.29	0.31	0.92	0.00	0.33	1.06	7.10	10.16	37.81

LEMOORE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	[1.52]	0.20	0.14	0.66	0.00	0.07	0.00	0.00	0.00	0.42	0.56	1.40	[4.97]
1880	0.54	2.17	0.46	1.32	0.00	0.60	0.00	0.00	0.00	T	0.00	4.07	8.56
1881	2.80	0.54	1.18	0.00	0.00	0.00	0.00	0.00	0.20	0.45	0.35	0.00	5.52
1882	0.32	1.20	0.60	0.96	0.08	T	0.00	0.00	0.00	0.83	0.90	0.00	4.89
1883	1.94	0.90	2.01	0.71	0.74	0.00	0.00	0.00	0.00	[0.60]	0.00	0.00	[6.90]
1884	3.50	3.21	3.40	3.25	0.40	1.49	0.00	0.00	0.00	0.25	0.20	3.87	19.57
1885	0.87	0.00	0.60	1.15	0.10	0.00	0.00	0.00	0.00	0.03	8.16	1.20	12.11
1886	3.16	0.20	1.21	3.35	0.00	0.00	T	0.00	0.00	0.25	0.30	1.15	8.62
1887	0.23	2.19	0.10	2.07	1.03	0.12	0.00	0.00	0.15	0.33	0.33	1.90	7.45
1888	1.89	0.00	1.28	0.00	0.88	0.00	0.00	0.00	0.00	0.00	2.01	0.96	7.05
1889	0.27	0.20	2.09	1.70	0.13	0.00	0.00	0.00	0.00	3.39	1.06	2.87	11,71
1890	1.23	0.86	0.51	0.22	0.22	0.00	......	......	......	......	......	......	......
Means	1.52	0.97	1.13	1.28	0.30	0.14	T	0.00	0.03	0.60	1.26	1.40	8.63

CAMP LINCOLN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	......	......	......	......	......	......	......	......	0.20	1.31	11.55	14.06	......
1867	26.31	11.29	4.59	10.06	0.60	1.20	0.05	0.00	1.30	[1.82]	8.80	16.72	[82.74]
1868	7.34	4.80	16.72	7.42	1.90	5.11	0.00	0.10	0.00	2.30	8.10	15.95	69.74
1869	17.05	3.95	12.30	3.99	0.27	......	......	......	......	......	......	......	......
Means	16.90	6.68	11.20	7.16	0.92	3.16	0.02	0.05	0.50	1.82	9.48	15.58	73.47

***Monthly and annual precipitation at stations in California*—Continued.**

LINDEN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	......	1.98	......
1887	0.46	4.68	0.51	2.89	T	T	0.00	0.00	0.38	0.01	0.60	3.36	12.89
1888	4.10	0.44	2.66	0.20	0.99	0.01	......	......	......	......	......	......	......
Means	2.28	2.56	1.58	1.54	0.50	T	0.00	0.00	0.38	0.01	0.60	2.67	12.12

LITTLE STONY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	......	......	......	......	......	......	......	......	......	8.40	......
1885	1.29	1.04	0.00	1.38	0.00	1.19	0.00	0.00	0.00	0.27	13.29	3.51	[21.97]
1886	3.44	0.00	1.10	3.89	......	......	......	......	......	......	......	......	......
Means	2.36	0.52	0.55	2.64	0.00	1.19	0.00	0.00	0.00	0.27	13.29	5.96	[26.78]

LIVERMORE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	0.00	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.06	......
1871	1.42	1.93	0.36	1.25	0.02	0.00	0.00	0.00	0.00	T	1.13	11.69	17.80
1872	2.15	2.69	0.65	0.43	0.00	0.32	0.00	T	0.00	0.00	1.22	3.87	11.33
1873	1.04	3.73	0.68	0.15	0.00	0.00	0.00	0.00	0.00	0.42	0.70	4.48	11.20
1874	2.96	1.03	1.34	0.95	0.32	0.06	0.00	0.00	0.30	1.67	2.03	0.20	10.86
1875	5.40	1.20	0.35	0.00	0.00	0.52	0.00	0.00	0.00	0.00	7.23	1.62	16.32
1876	2.68	3.01	4.39	0.73	0.33	0.00	0.00	0.00	0.00	1.26	0.10	0.00	12.50
1877	2.47	0.56	1.10	0.13	0.39	0.00	0.00	0.00	0.00	1.27	1.29	0.73	7.94
1878	4.61	6.73	2.01	0.96	0.06	0.00	0.00	0.00	0.00	0.24	0.31	0.17	15.09
1879	2.83	1.78	2.49	0.75	1.34	0.20	0.00	0.00	0.00	0.83	1.06	1.94	13.22
1880	1.48	1.80	1.45	6.51	0.91	0.00	0.00	0.00	0.00	0.00	0.65	7.75	20.55
1881	2.40	2.62	1.06	1.93	0.00	0.04	0.00	0.00	T	0.08	0.78	1.97	10.88
1882	1.07	1.72	4.85	1.03	0.20	0.00	0.00	0.00	0.34	1.52	1.48	0.38	12.59
1883	2.38	0.63	3.45	1.50	2.18	0.00	0.00	0.00	0.35	1.52	0.57	0.44	13.02
1884	4.03	5.29	5.92	2.70	0.20	1.73	0.00	0.10	0.30	1.14	0.02	6.22	27.65
1885	1.72	0.36	0.78	1.29	0.08	0.00	0.00	0.00	0.05	0.00	6.20	1.94	12.42
1886	4.20	0.24	1.18	2.36	0.00	0.00	0.40	0.00	0.00	0.30	0.70	0.81	10.19
1887	0.90	6.23	0.23	1.60	0.00	0.00	0.00	0.00	0.80	0.00	0.61	3.51	13.88
1888	3.20	0.94	2.51	0.60	0.66	0.30	0.00	0.00	0.76	0.00	3.80	2.21	15.01
1889	0.46	0.67	5.15	0.51	2.25	T	0.00	0.00	0.00	3.94	2.95	8.63	24.56
1890	5.24	3.71	2.85	0.86	0.48	0.00	......	......	......	......	......	......	......
Means	2.63	2.34	2.04	1.30	0.45	0.15	0.02	T	0.14	0.71	1.64	2.98	14.40

LIVINGSTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	......	......	......	......	4.87	0.97	......
1886	3.06	0.03	1.83	2.80	0.00	0.00	0.00	0.00	0.00	0.16	0.53	0.46	8.87
1887	0.37	2.41	0.43	1.46	0.00	0.00	0.00	0.00	0.17	0.00	0.11	1.81	6.76
1888	2.79	0.29	2.07	0.26	0.22	0.00	0.00	0.00	0.00	0.00	3.80	2.10	11.53
1889	0.27	0.40	2.67	0.10	1.60	0.00	0.00	0.00	0.00	2.74	3.20	5.68	16.66
1890	4.47	1.61	0.89	0.73	0.33	0.00	......	......	......	......	......	......	......
Means	2.19	0.95	1.58	1.07	0.43	0.00	0.00	0.00	0.06	0.72	2.50	2.20	11.70

LODI, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	......	......	......	......	......	......	......	......	......	0.00	0.77	4.54	......
1888	5.09	0.44	2.59	0.11	0.61	0.43	0.00	0.00	0.88	0.00	3.61	3.56	17.32
1889	0.35	0.65	5.07	0.20	2.57	0.11	0.00	0.00	0.00	5.62	4.71	7.70	26.98
1890	6.67	......	......	......	......	......	......	......	......	......	......	......	......
Means	4.01	0.54	3.83	0.16	1.59	0.27	0.00	0.00	0.44	1.87	3.03	5.27	21.04

Monthly and annual precipitation at stations in California—**Continued.**

LOS ALAMOS, CAL.

[The means include 4 years' record not now obtainable.]

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888			......	......	......	......	......	......	......	......	3.88	4.09	......
1889	0.37	1.96	......	......	......	......	......	......	......	......	......	......	......
Means	1.11	0.84	2.61	2.06	0.23	0.00	0.00	0.00	0.00	0.00	7.35	3.07	17.27

LOS ANGELES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	2.25	0.43	0.97	0.10	0.00	0.00	0.22	0.00	0.00	0.00	4.42	......
1873	2.08	7.19	0.05	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.74	5.74	16.86
1874	5.51	9.77	1.09	0.45	0.42	0.00	0.00	0.00	0.06	1.81	1.89	0.20	21.20
1875	17.22	0.15	0.22	0.07	0.05	0.00	0.00	0.00	0.00	0.00	7.57	0.82	26.10
1876	6.54	7.92	3.41	0.45	0.03	0.00	0.00	0.00	0.00	0.40	0.00	0.00	18.75
1877	3.48	0.01	0.83	0.26	0.30	0.00	0.00	0.00	0.00	0.86	0.45	3.93	10.12
1878	3.33	7.68	2.57	1.71	0.66	0.07	0.00	0.00	0.00	0.14	0.00	4.70	20.86
1879	3.59	0.97	0.49	1.19	0.24	0.03	0.00	0.00	0.00	0.93	3.44	6.53	17.41
1880	1.33	1.56	1.45	5.06	0.04	0.00	T	T	0.00	0.14	0.67	8.40	18.65
1881	1.43	0.36	1.66	0.46	0.01	0.00	0.00	T	T	0.82	0.27	0.52	5.53
1882	1.01	2.66	2.66	1.83	0.63	T	0.00	0.00	T	0.05	1.82	0.08	10.74
1883	1.62	3.47	2.87	0.15	2.02	0.03	T	0.00	0.00	1.42	0.00	2.56	14.14
1884	3.15	13.37	12.36	3.58	0.39	1.39	0.02	0.02	T	0.39	1.07	4.65	40.39
1885	1.05	0.01	0.01	2.01	0.06	T	T	T	0.05	0.30	5.55	1.65	10.69
1886	7.78	1.41	2.52	3.32	0.01	0.11	0.27	0.21	0.11	0.02	1.18	0.26	17.20
1887	0.20	9.25	0.29	2.36	0.20	0.07	0.07	T	0.18	0.17	0.80	2.68	16.27
1888	6.04	0.80	3.17	0.12	0.05	0.01	0.04	0.10	0.03	0.40	4.02	6.26	21.04
1889	0.25	0.92	6.48	0.27	0.65	0.01	T	0.28	0.34	6.96	1.35	15.80	33.31
1890	7.83	1.36	0.66	0.22	0.03	0.02	......	......	......	......	......	......	......
Means	4.08	3.74	2.27	1.29	0.31	0.09	0.02	0.10	0.04	0.82	1.71	3.84	18.31

LOS BAÑOS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	......	......	......	......	......	0.25	T	0.44	2.57	14.62	7.39	......
1873	17.68	11.83	13.19	8.45	3.36	1.45	0.02	T	0.04	0.23	1.46	0.74	58.45
1874	1.61	1.08	1.20	0.77	0.28	0.13	......	......	......	......	......	......	......
1875	3.72	0.00	0.33	......	T	......	0.25	0.00	0.00	0.00	5.06	0.42	......
1876	1.50	1.54	1.60	0.11	0.00	0.00	0.00	0.00	0.00	0.03	0.16	0.00	4.94
1877	0.96	0.25	0.16	T	0.04	0.00	0.00	0.00	0.00	0.00	0.79	0.65	2.85
1878	2.56	3.14	1.19	0.59	0.00	0.00	0.00	0.00	0.00	0.27	0.19	0.29	8.23
1879	0.50	0.89	0.42	0.68	0.17	0.08	0.00	0.00	0.00	0.14	0.67	0.79	4.34
1880	0.23	0.83	0.29	1.65	0.31	0.00	0.00	0.00	0.00	0.00	0.58	3.42	7.31
1881	0.99	1.16	0.86	0.99	0.00	0.02	0.00	0.00	0.00	0.00	0.30	0.20	4.50
1882	0.71	0.49	2.26	0.35	0.00	0.00	0.00	0.00	0.44	0.70	0.57	......	......
1883	1.62	0.43	1.81	0.07	1.81	0.00	0.00	0.00	0.00	0.42	0.06	0.38	6.60
1884	1.48	3.09	2.95	1.80	1.03	1.37	0.00	0.00	0.00	1.01	......	......	......
1885	......	......	......	0.75	0.00	0.00	0.00	T	0.00	0.00	6.24	0.69	......
1886	3.32	0.05	1.32	1.46	0.00	0.00	0.00	0.00	0.00	0.42	0.18	0.21	6.96
1887	0.06	1.50	0.41	0.43	0.00	T	0.00	0.00	T	0.00	0.05	0.74	3.22
1888	1.83	0.06	1.33	0.00	0.19	T	T	T	0.60	0.00	2.99	1.92	8.92
1889	0.27	0.76	1.77	0.22	0.64	T	0.00	0.00	[0.20]	0.86	2.43	5.54	[12.69]
1890	3.11	1.03	0.75	0.02	0.33	......	......	......	......	......	......	......	......
Means	1.54	1.65	1.87	1.08	0.45	0.19	0.03	T	0.10	0.39	2.27	1.56	11.13

LOS GATOS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	0.15	0.54	1.90	0.00	0.00	0.00	0.00	0.00	0.06	13.31	6.61	......
1886	11.30	1.34	2.82	7.12	0.43	T	0.01	0.00	0.07	0.92	0.68	1.36	26.08
1887	1.52	15.31	1.68	2.75	0.03	T	T	0.00	0.46	0.05	1.36	6.91	30.07
1888	5.73	1.47	6.74	0.07	1.00	0.38	0.00	0.00	0.59	6.19	3.88	4.40	30.45
1889	0.66	0.45	10.61	0.74	2.35	0.00	0.00	0.00	0.00	10.85	4.33	19.94	49.93
1890	15.68	7.12	4.92	1.03	1.34	0.00	......	......	......	......	......	......	......
Means	6.98	4.31	4.55	2.27	0.86	0.06	T	0.00	0.22	3.61	4.71	7.85	35.42

***Monthly and annual precipitation at stations in California*—Continued.**

LUGONIA, CAL.

[The means include a year's record not now obtainable.]

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	1.13	0.07	......
1887	0.09	4.95	0.19	2.38	0.20	0.30	0.00	......	......	0.70	4.00	3.19	......
1888	4.80	2.00	3.25	0.38	......	......	......	......	......	......	......	......	......
Means	2.21	3.18	2.84	2.24	0.83	0.44	0.00	0.00	0.00	0.33	1.34	1.55	14.96

MALAKOFF MINE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	0.00	0.00	0.00	2.39	0.80	5.32	......
1887	5.06	18.12	2.27	7.52	0.89	0.49	0.00	0.00	0.64	0.00	1.68	8.26	44.93
1888	12.14	2.67	......	......	......	......	......	......	......	......	......	......	......
Means	8.60	10.40	2.27	7.52	0.89	0.49	0.00	0.00	0.32	1.20	1.24	6.79	39.72

MARE ISLAND, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	9.50	3.18	5.27	2.64	......	0.40	0.13	......	......	......	1.32	......	......
1869	4.96	3.99	2.37	......	......	......	......	......	......	2.00	1.09	4.22	......
1871	......	......	......	......	......	......	......	......	......	0.12	3.45	14.02	......
1872	4.21	5.62	1.33	0.40	......	......	......	......	......	0.11	1.99	4.15	......
1873	1.65	3.32	1.03	0.39	......	......	......	......	......	0.24	1.22	8.59	......
1878	11.07	8.28	3.68	0.47	0.28	......	......	......	......	......	......	......	......
Means	6.28	4.88	2.74	0.98	0.28	0.40	0.13	......	......	0.62	1.81	7.74	......

MARTINEZ, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	1.69	7.25	2.68	0.97	0.17	0.00	0.00	0.00	0.11	0.28	0.45	0.22	13.82
1879	3.65	2.64	5.20	0.96	0.64	0.00	0.00	0.00	0.00	0.66	1.60	2.89	18.24
1880	0.42	1.14	1.78	8.02	0.94	0.00	0.00	0.00	0.00	0.00	0.25	8.84	21.39
1881	5.00	2.41	1.00	1.95	0.00	0.21	0.00	0.00	0.00	0.67	1.28	3.30	15.82
1882	2.05	1.38	3.08	0.97	0.17	0.00	0.00	0.00	0.00	1.53	2.92	0.46	12.56
1883	2.51	0.86	2.41	1.14	2.86	0.00	0.00	0.00	0.56	0.42	0.40	0.61	11.77
1884	3.57	4.65	7.97	3.17	0.00	2.00	0.00	0.00	0.13	1.13	0.00	4.76	27.38
1885	1.66	0.17	0.55	1.75	0.00	0.00	0.00	0.00	0.06	0.15	8.08	4.11	16.53
1886	5.39	0.05	1.53	3.44	0.25	0.00	0.07	0.00	0.00	0.35	0.58	1.29	12.95
1887	0.94	7.46	0.56	1.94	0.00	0.00	0.00	0.00	0.33	0.00	0.30	0.95	12.48
1888	4.24	1.65	3.54	0.00	0.10	0.15	0.00	0.00	0.65	0.00	3.05	2.91	16.30
1889	1.05	0.85	6.38	0.60	1.95	[0.00]	0.00	0.00	0.00	6.12	2.66	11.80	[31.41]
1890	8.83	6.00	3.52	0.86	0.74	0.00	......	......	......	......	......	......	......
Means	3.14	2.81	3.09	1.98	0.60	0.20	0.01	0.00	0.15	0.94	1.80	3.51	18.37

MARYSVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	1.21	0.29	0.53	1.00	0.00	0.00	0.00	0.00	0.09	0.72	8.08	......
1872	5.50	3.88	2.27	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.08	4.90	17.66
1873	1.75	4.30	1.04	0.71	0.32	0.00	T	0.00	0.00	0.58	2.39	12.37	23.46
1874	5.55	1.63	3.79	1.13	0.30	0.00	0.00	0.00	0.00	1.72	4.14	0.34	17.60
1875	4.21	0.04	1.20	0.00	0.06	1.97	0.00	0.00	0.00	0.02	3.56	2.41	13.47
1876	2.79	3.32	4.06	1.05	0.15	0.00	0.11	0.06	0.00	4.15	0.40	0.00	16.09
1877	3.60	1.57	0.92	0.12	0.81	0.42	0.00	0.00	0.00	0.50	1.68	1.55	11.17
1878	9.47	5.32	3.53	1.30	0.39	0.00	0.00	0.00	0.62	0.64	0.60	0.49	22.36
1879	1.76	2.93	3.08	3.76	1.79	0.09	0.00	0.03	0.00	1.04	2.83	3.60	20.91
1880	1.27	1.28	0.66	7.23	0.99	0.00	0.00	0.00	0.00	0.00	0.05	6.90	18.38
1881	4.33	3.90	0.83	1.07	T	0.35	0.00	0.00	0.60	1.82	0.93	2.68	16.51
1882	1.84	2.51	1.93	1.09	0.00	0.98	0.00	0.00	1.00	2.40	2.57	0.77	15.09
1883	1.55	0.40	2.76	0.30	3.50	0.00	0.00	0.00	1.15	0.75	0.61	0.40	11.42

Monthly and annual precipitation at stations in California—Continued.

MARYSVILLE, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	2.49	2.82	3.31	2.57	0.00	1.18	0.00	0.00	0.09	1.74	0.00	4.24	18.44
1885	1.32	0.07	0.12	0.42	0.00	0.15	0.00	T	0.00	?T	8.23	3.95	14.26
1886	3.96	0.34	1.45	3.96	0.23	0.00	0.00	0.00	0.00	0.63	T	2.30	12.87
1887	0.73	6.09	1.02	1.90	0.10	0.09	0.00	0.00	0.00	0.00	1.07	3.70	14.70
1888	4.58	[2.45]	2.55	0.00	0.41	0.32	0.00	0.00	0.00	0.00	4.23	6.27	[20.81]
1889	[3.40]	0.35	7.53	1.00	2.35	0.50	0.00	0.00	0.00	5.87	3.73	9.01	[33.74]
1890	4.44	4.65	6.71	1.85	2.55	0.10	......	......	......	......	......	......	......
Means	3.40	2.45	2.40	1.55	0.75	0.31	0.01	T	0.18	1.16	1.99	3.89	18.09

MAMMOTH TANK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	0.00	0.00	1.64	......
1878	0.00	0.03	0.03	0.02	0.00	0.00	0.51	0.65	0.00	0.00	0.09	0.09	1.42
1879	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.28	0.13	1.64
1880	0.08	0.00	0.15	0.02	0.00	[0.00]	0.00	0.00	0.00	0.00	0.00	0.72	[0.97]
1881	0.00	0.00	0.22	0.80	0.00	0.00	0.28	0.88	0.00	0.26	0.00	0.00	2.44
1882	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.50	0.20	0.00	2.19
1883	0.00	0.75	0.00	0.00	[0.00]	0.00	0.00	0.00	0.00	0.05	0.00	1.22	[2.02]
1884	T	1.36	0.22	0.07	0.19	0.00	0.00	T	0.00	0.00	0.00	0.87	2.71
1885	0.00	0.02	0.00	0.00	0.00	0.00	T	0.62	0.00	0.00	1.01	0.00	1.65
1886	0.57	0.20	0.25	0.05	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.24	1.33
1887	0.00	1.38	0.00	0.13	0.00	0.00	0.00	0.00	0.33	0.03	0.20	0.05	2.12
1888	0.05	0.07	0.05	0.03	0.01	0.00	0.40	0.10	0.00	0.43	0.73	0.87	2.74
1889	0.62	0.03	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.11	3.18	5.48
1890	0.00	0.54	0.00	0.00	0.00	0.00	......	......	......	......	......	......	......
Means	0.20	0.38	0.18	0.09	0.02	0.00	0.10	0.20	0.03	0.16	0.20	0.69	2.27

McCLUNG RANCH, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	......	......	......	......	......	......	......	0.00	0.00	0.00	2.22	......
1880	0.85	1.02	0.30	1.61	0.18	0.07	0.00	0.00	0.00	0.00	0.07	1.70	5.80
1881	0.81	0.48	1.35	0.80	0.00	0.00	0.00	0.00	0.04	0.42	0.27	0.55	4.72
1882	1.40	1.32	0.33	0.71	0.43	0.00	0.00	0.00	......	......	......	......	......
Means	1.02	0.94	0.66	1.05	0.20	0.02	0.00	0.00	0.01	0.14	0.11	1.49	5.64

MEADOW VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1861	1.10	6.65	4.35	1.75	1.40	2.20	......	0.00	......	......	5.82	......	......
1862	......	......	......	......	......	......	......	......	2.10	1.60	......	5.40	......
1863	......	9.60	......	......	......	......	......	......	......	......	5.70	3.75	......
1864	1.85	0.50	2.55	4.55	2.65	0.15	2.40	3.30	[1.53]	0.50	17.90	16.40	[54.28]
1865	11.10	4.45	2.70	0.08	[1.99]	0.25	......	0.10	1.25	4.00	22.40	1.70	......
1866	17.35	6.90	19.05	0.70	2.95	1.75	......	......	......	3.95	8.75	30.35	......
1867	5.65	8.20	2.40	8.90	0.95	......	......	......	1.25	2.00	12.00	......	......
Means	7.41	6.05	6.21	3.20	1.99	1.09	2.40	1.13	1.53	2.41	12.10	11.52	57.01

MENDOCINO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	0.05	0.03	4.89	11.85	......
1872	12.25	17.75	5.65	2.40	0.00	0.00	0.00	0.00	0.00	0.88	4.94	7.01	50.88
1873	6.12	10.75	3.35	2.41	0.00	0.00	0.50	0.00	0.00	1.98	4.91	13.12	43.23
1874	12.65	6.54	6.86	3.61	1.55	0.00	0.00	0.00	0.00	3.27	13.32	1.60	49.10
1875	10.45	[9.45]	5.90	0.10	1.84	2.05	0.00	0.00	0.00	3.06	19.14	10.72	[62.71]
1876	9.91	13.59	22.09	4.39	2.84	0.00	0.00	0.00	0.72	9.17	2.00	0.28	64.99
1877	8.38	10.46	4.41	0.36	1.48	1.60	0.00	0.00	0.00	3.0[illegible]	8.73	5.23	43.74
1878	27.49	23.66	10.79	1.98	0.00	0.00	0.00	0.00	2.40	2.82	3.03	1.66	73.83
1879	7.88	7.92	21.17	4.54	2.90	0.12	0.31	0.41	0.21	2.20	14.31	13.37	75.40
1880	6.66	3.39	8.58	15.09	2.24	0.00	0.00	0.00	0.00	0.25	0.45	17.08	53.61
1881	16.92	10.93	1.97	2.78	0.15	0.42	0.00	0.00	0.40	2.03	2.87	8.42	46.89
1882	5.49	5.94	5.25	4.32	1.17	0.00	0.00	0.00	0.60	3.78	3.70	4.08	31.33

Monthly and annual precipitation at stations in California—Continued.

MENDOCINO, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	3.98	1.80	4.59	3.88	2.78	0.00	0.00	0.00	2.13	2.87	1.87	2.00	[25.90]
1884	5.71	4.94	4.70	9.32	0.54	0.91	0.00	0.00	......	......	......	......	......
1886	......	......	......	......	......	......	0.14	......	......	3.23	1.37	9.61	......
1887	3.60	7.02	3.28	5.09	0.97	......	......	......	......	0.00	3.30	......	......
1888	15.13	......	......	......	......	......	......	......	......	......	......	......	......
1889	......	......	......	......	......	......	......	......	0.44	9.05	3.45	17.21	......
1890	12.41	6.98	8.15	3.46	......	......	......	......	......	......	......	......	......
Means	8.76	9.45	7.78	4.25	1.32	0.39	0.07	0.03	0.50	2.98	5.77	8.88	50.18

MENLO PARK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	1.72	1.36	0.10	0.00	0.00	T	0.00	0.00	0.42	0.25	......
1879	3.09	2.73	4.27	1.19	0.98	0.03	0.00	0.00	0.00	0.48	1.66	3.96	18.39
1880	1.92	1.79	1.65	6.44	0.69	0.00	0.00	0.00	0.00	0.00	0.59	8.93	22.01
1881	3.70	1.56	0.68	2.66	0.00	0.21	0.00	0.00	0.00	0.36	0.71	1.97	11.88
1882	0.65	1.17	3.71	0.67	0.18	0.00	0.00	0.00	0.23	1.25	1.69	0.52	10.07
1883	2.38	0.52	2.70	0.76	2.49	0.00	0.00	0.00	0.20	0.73	0.28	0.85	10.91
1884	3.35	4.07	4.80	3.40	0.00	3.16	0.00	0.05	0.01	1.86	0.27	4.92	25.92
1885	1.89	0.12	0.50	1.98	0.01	0.00	0.00	0.00	0.02	0.09	6.22	2.17	13.03
1886	4.97	0.37	1.65	3.34	0.08	0.00	0.24	0.00	0.00	0.86	0.40	1.26	13.17
1887	0.72	4.92	0.46	1.18	0.01	0.00	0.00	0.00	0.22	0.00	0.85	2.16	10.52
1888	3.17	1.36	2.31	0.02	0.37	0.09	0.00	0.00	0.98	0.00	3.72	2.59	14.61
1889	0.65	0.54	5.75	0.69	1.08	0.00	0.00	0.00	0.00	4.96	2.38	10.85	26.90
1890	7.45	3.27	2.76	0.51	1.48	0.00	......	......	......	......	......	......	......
Means	2.83	1.87	2.54	1.86	0.58	0.27	0.02	0.00	0.14	0.88	1.60	3.37	15.96

MERCED, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	0.00	0.00	0.80	3.67	......
1872	2.16	1.62	0.36	0.89	0.00	......	0.00	0.00	0.00	0.00	T	5.30	[10.00]
1873	5.69	[1.22]	T	0.00	0.00	0.00	T	[0.00]	0.00	0.00	[1.42]	[1.67]	[7.76]
1874	[2.20]	0.00	0.00	0.00	1.65	0.00	0.00	0.00	0.47	1.84	1.60	0.00	......
1875	3.95	0.15	0.97	0.00	0.00	1.02	0.00	0.00	0.00	0.00	5.83	0.73	12.65
1876	2.90	1.38	1.54	0.17	0.13	0.00	0.17	0.00	0.00	0.72	0.09	0.00	7.10
1877	1.14	0.03	0.53	T	0.52	0.00	0.00	0.00	0.00	0.06	1.17	0.85	4.30
1878	3.35	2.78	1.89	1.71	T	0.00	0.00	0.00	0.00	0.25	0.42	0.03	10.43
1879	0.96	1.32	1.19	1.35	0.21	0.10	0.00	0.00	0.00	0.60	1.63	1.08	8.44
1880	0.69	2.06	0.64	4.71	0.48	0.00	0.00	0.00	0.00	0.00	0.63	4.60	13.81
1881	3.40	1.69	0.85	0.31	0.00	0.08	0.00	0.00	0.14	0.35	0.47	0.70	8.02
1882	0.92	1.37	3.19	1.12	0.32	0.00	0.00	0.00	0.53	0.98	0.53	0.07	9.03
1883	1.55	0.50	3.11	0.41	2.13	0.00	0.00	0.00	0.10	1.01	0.38	0.99	10.18
1884	1.64	4.39	5.38	5.60	0.85	1.73	0.00	0.00	0.00	0.54	0.02	3.63	23.79
1885	0.85	0.00	0.65	1.49	0.00	0.00	0.00	0.00	0.00	0.00	5.82	1.08	9.89
1886	2.61	0.10	0.91	2.85	0.00	0.00	0.00	0.00	0.00	0.47	0.25	0.58	7.83
1887	0.13	2.83	0.20	1.74	0.00	0.00	0.00	0.00	0.45	0.00	0.10	1.00	6.45
1888	2.67	0.15	1.68	0.28	0.65	0.10	0.00	0.00	0.50	0.00	2.40	2.12	10.55
1889	0.45	0.15	1.21	0.20	0.77	0.00	0.00	0.00	0.00	1.61	2.80	5.59	12.78
1890	4.40	1.50	1.01	0.39	0.51	0.00	......	......	......	......	......	......	......
Means	2.19	1.22	1.33	1.22	0.43	0.17	0.01	T	0.12	0.44	1.40	1.77	10.30

MIDDLETON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	......	......	......	......	......	......	......	......	......	8.38	9.59	......
1880	7.07	2.48	4.64	22.21	1.76	0.00	0.00	0.00	0.00	0.06	0.02	21.86	60.10
1881	17.85	5.95	1.83	2.52	0.29	0.31	0.00	0.00	0.55	1.26	1.05	8.09	39.73
1882	2.86	6.80	4.60	2.57	0.65	0.00	0.00	0.00	0.90	2.93	5.07	1.47	27.85
1883	2.25	1.92	7.25	3.69	3.97	0.00	0.00	0.00	0.85	1.70	0.57	2.34	24.54
1884	8.25	5.25	12.82	8.42	0.30	2.98	0.00	0.00	0.50	2.08	0.05	22.93	63.58
1885	2.54	1.37	0.70	1.32	0.00	0.27	0.00	0.00	0.15	0.54	19.42	6.60	32.91
1886	13.61	0.32	1.71	8.03	1.64	0.00	......	......	......	......	......	3.96	......
1887	2.25	10.74	......	......	......	......	......	......	......	......	......	......	......
Means	7.08	4.35	4.79	6.97	1.23	0.51	0.00	0.00	0.49	1.43	4.94	9.60	41.39

Monthly and annual precipitation at stations in California—Continued.

MIDWAY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	0.00	0.00	0.00	0.16	0.48	0.69	......
1878	3.52	4.21	0.99	0.78	0.12	0.00	0.00	0.00	0.00	0.23	0.10	0.41	10.36
1879	1.51	......	......	......	......	......	......	......	......	......	......	......	......
Means	2.52	4.21	0.99	0.78	0.12	0.00	0.00	0.00	0.00	0.20	0.29	0.55	9.66

MILLER, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1851	......	......	......	......	......	......	0.00	0.00	0.01	......	......	10.41	......
1852	0.42	0.61	15.59	2.59	0.60	0.00	0.00	0.00	0.07	0.07	8.80	20.60	49.35
1853	1.20	2.35	5.54	2.25	4.79	0.00	0.01	0.00	0.00	0.06	1.26	1.00	18.40
1854	2.26	2.42	0.85	2.08	0.04	0.01	[0.00]	[0.00]	0.12	0.68	0.00	1.25	[9.71]
1855	1.48	1.39	3.64	4.44	0.84	0.00	0.00	0.00	0.00	0.00	0.30	1.07	13.16
1856	1.86	0.83	3.10	1.18	1.10	0.00	0.00	0.00	0.00	0.20	1.49	2.91	12.67
1857	1.95	4.53	0.29	0.00	0.00	0.00	0.00	0.00	0.00	1.03	3.90	0.57	12.27
1858	2.36	0.17	1.00	0.81	0.00	0.00	......	......	......	......	......	......	......
1863	......	......	......	......	......	......	......	......	......	......	......	0.03	......
1864	0.19	0.00	1.05	1.30	2.70	0.00	0.00	0.00	......	......	......	......	......
Means	1.46	1.51	3.88	1.83	1.26	T	T	0.00	0.03	0.33	2.62	4.73	17.68

MODESTO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	0.49	0.75	0.11	0.78	0.09	0.04	0.00	0.00	0.00	T	0.87	4.76	[7.89]
1872	3.16	2.20	0.94	0.78	0.00	0.00	0.00	T	0.00	0.00	0.40	3.10	10.58
1873	1.05	2.66	0.05	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.05	3.75	7.95
1874	4.00	0.56	1.00	0.57	1.00	0.43	0.00	0.00	0.75	1.32	1.88	0.00	11.51
1875	2.46	0.00	0.88	0.08	0.00	0.03	0.00	0.00	0.00	0.00	5.98	1.42	10.85
1876	2.36	1.55	1.71	0.35	T	0.00	0.15	0.00	0.00	1.38	0.20	0.00	7.70
1877	1.10	0.08	0.80	0.31	0.43	0.00	0.00	0.00	0.00	0.27	0.84	1.39	5.22
1878	3.70	2.76	1.80	0.75	T	0.00	0.00	0.00	0.00	0.42	0.33	0.57	10.33
1879	1.62	1.26	2.11	1.31	0.71	0.15	0.00	0.00	0.00	1.07	3.01	1.74	12.98
1880	0.43	1.31	0.70	4.11	0.51	0.00	0.00	0.00	0.00	0.00	0.60	3.55	11.21
1881	1.39	1.63	0.70	0.53	0.00	0.00	0.00	0.00	0.00	0.25	0.65	0.80	5.95
1882	0.99	0.62	1.85	0.79	0.50	0.19	0.00	0.00	0.58	0.64	2.07	0.12	8.35
1883	2.14	0.20	1.31	0.73	2.24	0.00	0.00	0.00	0.25	1.39	0.16	0.44	8.86
1884	0.75	2.01	3.89	2.84	0.15	0.99	0.00	0.00	0.00	1.20	0.00	2.62	14.45
1885	0.90	0.09	0.70	0.98	0.00	0.00	0.00	0.00	0.00	0.00	5.05	0.85	8.48
1886	2.54	0.10	1.46	2.79	0.00	0.00	0.00	0.00	0.00	0.25	1.01	0.65	8.80
1887	0.09	2.16	0.31	1.22	0.00	0.00	0.00	0.00	0.05	0.00	0.10	1.76	5.72
1888	1.72	0.53	1.36	0.27	0.69	0.10	0.00	0.00	0.51	0.00	1.86	1.40	8.44
1889	0.45	0.20	1.80	0.19	1.20	0.00	0.00	0.00	0.00	1.79	2.22	5.31	13.16
1890	3.95	1.03	0.88	0.63	0.59	0.00	......	......	......	......	......	......	......
Means	1.76	1.08	1.22	1.02	0.41	0.10	0.01	T	0.11	0.53	1.44	1.80	9.57

MOJAVE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	0.00	0.00	0.00	0.00	......
1877	0.85	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.38	3.24
1878	1.22	1.74	0.30	0.76	0.00	0.02	0.00	0.10	0.29	0.00	0.32	1.07	5.82
1879	0.62	0.05	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.42	4.16	5.47
1880	0.40	0.50	0.71	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	3.24
1881	0.00	0.00	0.06	0.18	0.00	0.00	0.00	0.00	0.00	T	T	T	0.24
1882	0.05	0.58	[0.74]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	[1.37]
1883	0.00	0.00	0.00	0.00	T	0.00	0.00	0.00	0.00	0.10	0.00	0.25	0.35
1884	1.77	5.69	2.17	0.61	0.00	1.05	0.00	0.10	0.00	0.13	[0.31]	[1.59]	[13.42]
1885	0.00	0.66	0.00	0.61	0.14	0.00	0.71	0.00	0.00	0.00	1.25	1.16	3.93
1886	1.49	T	1.22	0.14	0.00	T	T	0.00	0.00	T	0.76	0.08	3.69
1887	T	4.09	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.95	0.56	1.06	6.80
1888	2.62	1.56	1.75	0.00	0.00	[0.00]	0.00	[0.00]	0.00	0.00	[0.31]	2.23	[8.47]
1889	0.35	[1.14]	3.43	0.00	T	0.00	0.00	0.81	0.27	2.21	0.45	7.30	[15.96]
1890	0.85	0.58	0.00	0.00	[0.00]	0.00	......	......	......	......	......	......	......
Means	0.73	1.14	0.74	0.23	0.01	0.08	0.06	0.08	0.04	0.24	0.31	1.59	5.30

Monthly and annual precipitation at stations in California—Continued.

MONTAGUE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888						3.13	0.15		0.61	0.16	0.98		
1889	?	0.04	1.78	0.55	1.70	0.60	0.00	0.00	0.00	3.20	1.60	3.74	
1890	3.70	6.05	3.60	0.33	0.82	1.15							
Means	3.70	3.04	2.69	0.44	1.26	1.63	0.08	0.00	0.30	1.68	1.29	3.74	19.85

MONTEREY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1847					0.03	0.00	0.00	0.00	0.00	1.10	3.10	0.00	
1848	1.70	2.20	2.40	0.65	2.50	0.50	0.50	0.00					
1849					0.03	0.00	0.00	0.00	0.00	0.01	0.61	3.45	
1850	2.95	2.00	1.30	0.33	0.00	0.00	0.00	0.00	0.02	0.00	0.61	2.98	10.19
1851							0.01	0.00	0.01	0.20	0.91	4.50	
1852	0.40	0.30	6.12	0.92	0.10	0.16	0.00	0.00					
1859											3.03	2.86	
1860	0.98	0.54	7.02	2.60	2.05	0.17	0.40			0.70	0.11		
1861					0.10								
1863											2.01	0.69	
1864	4.28	0.04	1.60	1.23	1.35	0.06	0.00	0.10	0.00	0.30	4.13	3.99	17.08
1865	1.94	1.66	0.31	0.36	0.31	0.00	0.10	0.00	0.17	0.17	1.78	1.36	8.16
1866	6.07	1.16	3.13	0.99	0.86	0.14	0.00	0.02	0.00	0.00	2.33	6.86	21.56
1867	3.61	4.23	3.31						0.09		2.76	6.71	
1868	7.65	1.66	4.78	1.04	0.11	0.25	0.06				1.42	4.30	
1869	3.83	4.13	2.69	0.94		0.03	0.01			1.36	0.72	2.42	
1870	1.13	3.80	1.91	1.44	0.81	0.00				0.46	1.19	2.37	
1871	1.44	2.64	0.31		0.50	0.03						11.42	
1872	0.33	3.45	1.08	0.66	0.31	0.65		0.16	0.05				
1877								0.00	0.00	0.00	0.46	4.50	
1878	9.47	11.68	3.42	2.49	0.00	0.00	0.00	0.00	0.00	0.54	0.18	0.77	28.55
1879	3.54	2.36	2.32	1.77	0.41	0.00	0.00	0.00	0.00	0.54	1.00	3.49	15.43
1880			1.05	5.31	0.77	0.00	0.00	0.00	0.00	0.00	0.40	5.47	
1881	2.70	2.07	1.55	1.37	0.00	0.20	0.00	0.00	0.00	0.60	1.20	2.13	11.82
1882	1.50	2.52	5.64	1.57	0.00	0.00	0.00	0.00	0.22	1.67	1.20	0.39	14.71
1883	2.60	2.22	5.68	1.42	0.99	0.10	0.00	0.00	0.19	0.71	0.39	1.16	15.46
1884	2.60	4.34	6.08	3.75	0.36	1.80	0.00	0.07	0.03	1.81	0.30	5.33	26.47
1885	1.22	0.09	0.40	1.70	0.20	0.03	0.00	0.00	0.00	0.00	6.55	1.73	11.92
1886	3.09	1.14	2.52	3.39	0.08	0.00	0.00	0.00	0.00	0.70	0.78	0.60	12.30
1887	0.35	4.92	0.60	1.16	0.00	0.05	0.00	0.00	0.25	0.00	1.35	1.81	10.49
1888	3.95	1.09	3.29	0.23	0.81	0.00	0.00	0.00	0.65	0.00	1.76	2.76	14.54
1889	0.81	0.94	3.58	1.15	1.22	0.00	0.00	0.00	0.00	4.28	1.62	11.54	25.14
1890	7.67	2.67	0.83	0.34	0.37	0.00							
Means	3.03	2.55	2.80	1.53	0.53	0.15	0.04	0.02	0.08	0.66	1.55	3.54	16.48

MOUNT DIABLO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875		0.00	0.63	T	0.33	0.62	0.00	0.00	0.00	0.18	9.19	3.11	
1876	5.60	4.95	6.23	0.65			0.03	0.00	T	2.95	0.27	0.00	
1877	4.63	1.89	1.11	0.02	0.45	0.03	0.00						
Means	5.12	2.28	2.66	0.22	0.39	0.32	0.01	0.00	T	1.56	4.73	1.56	18.85

MOUNT HAMILTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880									0.00	0.00	0.00	9.68	
1881	3.51	5.99	1.13	0.98	0.09	0.33	0.00	0.00	0.10	0.33	0.91	9.72	23.09
1882	3.55	2.90	5.40	4.70	0.48	1.06	0.00	0.00	0.00	6.16	3.45	1.93	29.63
1883	3.10	3.75	8.66	2.66	7.55	0.00	0.00	0.00	0.65	2.15	1.48	2.05	32.05
1884	5.60	12.76	16.35	11.96	1.24	3.85	0.00	0.15	0.65	3.71	0.01	33.84	90.12
1885	1.99	0.57	1.15	2.08	0.16	0.36	0.00	0.00	0.15	0.05	[1.92]	[9.80]	[18.23]
1886	[4.40]	1.80	5.77	6.79	0.70	0.00	0.00	0.00	0.00	0.60	2.82	2.34	[25.22]
1887	2.83	7.80	1.39	5.75	0.25	0.30	0.04	0.00	0.33	0.09	0.90	11.25	30.93
1888	10.04	1.38	3.40	0.68	1.25	0.67	0.00	0.02	0.49	0.03	3.27	4.23	25.46
1889	1.04	1.42	6.17	1.92	3.21	0.05	0.00	0.00	0.00	4.38	4.46	13.19	35.84
1890	7.93	6.60	4.39	1.79	2.42	0.00							
Means	4.48	4.50	5.38	3.93	1.74	0.66	T	0.02	0.24	1.75	1.92	9.80	34.34

Monthly and annual precipitation at stations in California—Continued.

MUMFORD HILL, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	11.40	5.00	5.13	2.50	3.00	1.72	0.52	0.00	0.00	1.10	3.05	2.10	35.52
1878	18.15	26.52	9.44	2.10	1.85	0.00	0.30	0.70	2.10	2.75	5.15	3.75	72.81
1879	12.38	12.62	30.15	6.53	3.60	1.13	0.00	0.29	0.00	4.01	7.20	14.16	92,07
1880	10.06	7.96	5.18	23.54	6.42	0.00	0.00	0.90	0.00	0.00	0.76	24.34	79.16
1881	16.57	13.28	3.60	3.21	0.81	0.54	0.00	0.00	1.36	3.28	4.32	11.23	58.23
1882	9.94	8.60	10.75	7.48	2.05	0.00	0.00	0.00	......	......	......	......	......
Means	13.08	12.33	10.71	7.56	2.96	0.56	0.14	0.32	0.69	2.23	4.10	11.12	65.80

MURIETTA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	0.00	1.70	0.00	0.00	5.15	0.74	......
1886	10.66	0.48	5.94	3.79	T	0.00	T	0.00	......	......	......	......	......
Means	10.66	0.48	5.94	3.79	T	0.00	T	0.85	0.00	0.00	5.15	0.74	27.61

NAPA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	0.00	0.00	0.00	0.00	......
1877	5.88	1.59	0.55	0.50	0.69	0.04	0.05	0.00	0.00	0.53	1.97	1.96	13.76
1878	14.18	10.52	4.33	0.90	0.25	0.00	0.00	0.00	1.49	1.91	0.83	0.37	34.78
1879	4.06	6.00	8.36	1.56	1.50	0.07	0.00	0.00	0.00	0.47	2.56	4.76	29.34
1880	2.62	1.38	1.67	11.87	1.16	0.00	0.00	0.00	0.00	0.00	0.00	9.75	28.45
1881	11.69	3.97	0.83	1.14	0.06	0.75	0.00	0.00	0.13	1.01	1.62	4.21	25.41
1882	3.40	2.19	2.85	1.67	0.00	0.00	0.00	0.00	2.11	0.44	3.26	1.07	16.99
1883	2.04	1.12	4.41	1.45	4.04	0.00	0.00	0.00	0.95	1.27	2.12	0.60	18.00
1884	3.02	3.89	5.72	4.71	0.13	2.12	0.00	0.00	0.00	0.70	0.00	10.16	30.45
1885	1.96	0.40	0.43	1.51	0.00	0.00	0.00	0.00	0.05	0.61	8.51	4.35	17.82
1886	8.09	0.00	1.81	4.42	0.38	0.00	0.00	0.00	0.00	1.16	0.11	2.58	18.55
1887	1.87	10.68	0.67	2.27	0.17	0.00	0.00	0.00	0.00	0.00	1.35	4.18	21.19
1888	4.87	1.28	4.18	0.65	0.88	0.00	0.00	0.00	0.49	0.00	2.96	5.30	20.61
1889	0.87	0.98	8.87	0.52	2.17	0.00	0.00	0.00	0.00	5.32	3.88	12.23	34.84
1890	9.86	6.59	6.42	2.08	......	......	......	......	......	......	......	......	......
Means	5.32	3.61	3.65	2.52	0.92	0.23	0.00	0.00	0.37	0.96	2.08	4.39	24.05

NAPA CITY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	0.11	0.00	0.00	0.69	1.82	1.86	......
1878	15.31	13.82	4.97	1.50	0.40	0.00	0.00	0.01	1.50	2.54	0.95	1.15	42.15
1879	5.10	5.77	9.40	2.38	1.53	0.05	0.00	0.00	0.00	0.83	3.95	7.26	36.27
1880	3.64	2.19	2.61	12.25	1.39	0.00	0.00	0.00	0.00	0.00	0.08	11.36	33.52
1881	12.72	3.15	1.35	1.59	0.11	0.72	0.00	0.00	0.26	0.47	1.59	4.31	26.27
1882	3.22	3.65	3.60	1.74	0.15	0.00	0.00	0.00	0.48	2.93	4.02	3.55	23.34
1883	0.92	1.00	5.53	1.85	5.25	0.00	0.00	0.00	1.10	1.69	0.73	0.63	18.70
1884	3.67	5.22	7.12	5.68	0.35	2.72	0.00	0.00	0.21	1.62	0.00	10.32	36.91
1885	1.77	0.61	0.49	1.66	0.05	0.04	0.00	0.00	0.07	0.62	9.37	4.21	18.89
1886	7.86	0.25	1.22	3.82	0.32	0.00	0.00	0.00	0.00	0.89	0.22	2.96	17.54
1887	1.70	10.62	0.48	2.03	0.05	0.00	0.00	0.00	0.22	0.00	1.55	3.71	20.36
1888	4.15	1.28	4.34	0.47	0.94	0.42	0.03	0.00	1.08	0.00	3.12	5.18	21.01
1889	1.02	0.76	8.38	1.23	2.77	0.17	0.00	0.00	0.00	5.40	3.27	10.91	33.91
1890	9.40	6.59	6.42	2.08	1.91	0.00	......	......	......	......	......	......	......
Means	5.42	3.72	4.30	2.94	1.17	0.32	0.01	T	0.38	1.36	2.36	5.19	27.17

NEEDLES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	......	......	......	......	......	......	......	......	0.12	0.00	0.00	1.32	......
1884	0.00	1.86	2.08	0.10	0.75	0.00	0.00	0.00	0.00	......	......	......	......
1888	......	......	......	......	......	......	......	......	......	......	......	1.98	......
1889	3.36	0.07	......	......	......	......	0.08	1.27	......	0.25	......	3.30	......
1890	......	0.00	0.21	......	......	......	......	......	......	......	......	......	......
Means	1.68	0.64	1.14	0.10	0.75	0.00	0.04	0.64	0.06	0.12	0.00	2.20	7.37

***Monthly and annual precipitation at stations in California*—Continued.**

NEWARK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888								0.00	0.65	0.00	3.30	2.68	
1889	0.42	0.47	5.82	0.72	1.32	0.02	0.00	0.00	0.00	4.40	2.78	11.96	27.91
1890	6.28	3.34	2.27	0.85	1.05	0.00							
Means	3.35	1.90	4.04	0.78	1.18	0.01	0.00	0.00	0.32	2.20	3.04	7.32	24.14

NEWHALL, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876												0.00	
1877	1.56	T	0.43	0.50	0.56	0.00	[0.00]	0.00	0.00	0.03	0.32	1.45	[4.85]
1878	3.78	3.23	1.02	1.46	0.15	0.00	0.00	0.00	0.00	0.00	0.00	2.33	11.97
1879	2.25	0.62	0.00	1.52	0.05	0.00	0.00	0.00	0.00	0.37	3.10	9.23	17.14
1880	0.10	2.25	1.08	3.39	0.00	0.00	0.00	0.00	0.00	0.00	0.26	6.22	13.30
1881	0.57	0.06	1.70	0.34	0.00	0.00	0.00	0.00	0.00	1.23	0.12	4.21	8.23
1882	0.43	2.36	4.71	0.93	0.00	0.00	0.00	0.00	0.00	0.16	1.20	0.00	9.79
1883	1.96	2.95	3.07	0.00	2.28	0.00	0.00	0.00	0.00	0.16	0.00	3.34	13.76
1884	6.66	14.53	9.73	3.85	2.17	1.67	0.00	0.00	0.00	0.60	1.10	3.89	44.20
1885	0.47	0.00	0.07	1.75	0.00	0.06	0.02	0.00	0.00	0.00	9.01	2.25	13.63
1886	5.22	0.69	3.11	4.27	0.00	T	0.00	0.00	0.00	0.00	0.87	0.21	14.37
1887	0.00	12.38	0.15	1.96	0.10	0.03	0.00	0.00	0.02	0.65	1.46	4.26	21.01
1888	6.74	1.17	4.21	0.29	0 04	0.00	0.00	0.00	0.00	0.40	3.69	5.64	22.18
1889	0.35		9.39	0.40	0.56	0.00	0.00	0.36	0.00	[0.30]	3.36	15.70	
1890	6.30	4.41	0.44	0.33	[0.45]	0.00							
Means	2.60	3.43	2.80	1.50	0.45	0.13	0.00	0.03	0.00	0.30	1.88	4.20	17.32

NEW IDRIA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881									0.00	0.04	0.30	1.01	
1882	0.95	2.15	9.58	0.67	0.17	0.10	0.03	0.00	0.33	0.91	0.89	1.47	17.25
1883									0.06	0.86	0.45	0.57	
1884	6.81	6.28	9.02	3.66	2.85	3.05	0.00	0.00	T	0.94	0.00	3.30	35.91
1885	0.95	0.00	1.47	4.78	0.00	0.00	0.00	0.00	0.00	0.00	8.81	9.78	25.79
1886	0.00	1.28	2.19	5.05	0.00	0.25							
Means	2.18	2.43	5.56	3.54	0.76	0.85	0.01	0.00	0.08	0.55	2.09	3.23	21.28

NEWMAN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888											3.80	1.59	
1889	0.51	0.64	3.67	0.25	0.99	0.00	0.00	0.00	0.00	4.28	4.27	5.52	20.13
1890	4.56	3.34	0.80	0.70	0.20	0.00							
Means	2.54	1.99	2.24	0.48	0.60	0.00	0.00	0.00	0.00	4.28	4.04	3.56	19.73

NEW SAN DIEGO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	1.02	1.84	0.11	0.59	0.02	0.09	0.18	0.00	0.03	T	6.55	3.32	13.75
1861	1.10	0.58	0.03	0.01	T	0.03	T	T	1.57	0.02	1.18	2.91	7.43
1862	7.55	1.85	1.02	0.70	0.12	0.17	0.12	T	0.00	1 12	0.03	1.09	13.77
1863	0.35	1.40	0.28	0.17	0.04	0.00	0.00	0.00	0.40	0.00	0.85	0.01	3.50
1864	0.02	2.60	0.43	0.01	1.39	0.01	0.22	0.00	0.00		1.99	0.84	
1865	1.45	3.45	0.00	0.66	T	0.03	1.44	T	0.00	0.01	0.55	0.94	8.53
1866	5.06	2.87	0.95	0.60									
1870									0.00	0.86	0.50	0.56	
1871			0.03	0.61									
Means	2.36	2.08	0.36	0.42	0.26	0.06	0.33	T	0.29	0.34	1.66	1.38	9.53

Monthly and annual precipitation at stations in California—Continued.

NEVADA CITY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1863	......	......	......	......	......	......	......	......	0.00	0.00	1.00	3.50	......
1864	0.90	0.50	5.38	3.25	2.75	0.00	0.00	0.75	0.00	0.00	17.05	17.42	48.00
1865	9.71	4.38	2.09	1.75	1.31	0.00	0.00	0.00	0.59	2.03	14.29	1.95	38.10
1866	15.47	5.60	14.24	0.59	4.50	0.00	0.00	0.00	0.00	0.00	9.61	32.70	82.71
1867	14.21	10.00	6.23	6.88	1.93	0.00	0.00	0.00	1.91	3.63	16.11	41.95	102.85
1868	11.01	6.36	23.30	7.22	1.50	2.27	0.00	0.00	0.34	0.43	1.49	10.62	64.54
1869	16.85	12.62	6.96	5.72	1.62	0.04	0.00	0.00	0.15	0.50	4.67	6.29	55.42
1870	9.23	14.48	7.58	4.70	0.65	0.36	0.03	0.00	0.00	3.82	4.32	5.32	50.49
1871	11.08	6.26	5.41	5.55	3.26	0.33	0.00	0.00	0.00	0.79	5.00	27.31	64.99
1872	18.16	16.67	5.28	3.76	0.17	1.08	0.00	0.00	0.00	0.55	4.05	12.25	61.97
1873	2.82	12.40	1.96	2.47	2.20	0.00	0.00	0.00	0.00	0.67	1.35	24.27	48.14
1874	11.16	7.32	12.20	4.51	1.32	0.11	0.00	0.00	0.00	3.06	15.08	0.90	55.66
1875	16.57	2.11	3.97	0.27	1.56	2.43	0.00	0.00	0.00	1.75	16.56	5.90	51.12
1876	12.47	12.41	13.88	2.17	1.53	0.00	0.00	0.00	0.41	9.85	1.04	0.00	53.76
1877	10.26	2.45	4.18	1.43	1.97	0.72	0.71	0.00	0.00	1.35	4.31	2.65	30.03
1878	17.62	16.61	10.05	2.80	1.05	0.00	0.00	0.00	0.69	2.32	2.88	0.96	54.98
1879	11.62	10.97	19.28	5.90	3.83	0.43	0.00	0.05	0.00	3.15	5.50	8.76	69.49
1880	6.67	5.48	5.09	22.54	5.58	0.15	0.00	0.00	0.00	0.06	0.28	24.78	70.63
1881	18.88	6.26	4.44	1.70	0.00	1.47	0.00	0.00	1.38	3.03	2.53	9.14	48.83
1882	7.29	5.42	9.21	4.39	0.52	0.60	0.00	0.00	2.22	7.65	5.34	3.87	46.51
1883	2.39	3.06	14.27	2.98	6.92	0.00	0.00	0.00	1.28	3.60	1.62	2.84	38.96
1884	9.08	12.01	14.70	12.07	1.67	2.47	0.07	0.00	1.87	3.61	0.00	27.92	85.47
1885	4.39	1.69	0.52	3.23	0.21	1.36	0.00	0.00	1.62	0.00	21.55	6.77	41.35
1886	13.66	1.54	6.92	12.49	1.23	0.00	......	......	......	......	......	......	......
Means	10.93	7.68	8.57	5.15	2.06	0.60	0.04	0.04	0.54	2.25	6.77	12.09	56.72

NICOLAUS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	0.00	0.00	0.19	0.50	1.50	1.38	......
1878	8.62	6.81	3.56	1.68	0.06	0.00	0.00	0.00	0.19	0.38	0.31	0.50	22.11
1879	2.94	2.87	6.12	2.94	0.81	0.00	0.00	0.00	0.00	1.50	2.00	4.37	23.55
1880	1.69	1.63	1.25	11.13	1.50	0.00	0.00	0.00	0.00	0.00	0.00	10.62	27.82
1881	7.37	3.87	1.05	1.38	0.06	0.50	0.00	0.00	0.56	0.81	2.06	2.37	20.04
1882	1.94	2.06	2.31	1.56	0.00	0.00	0.00	0.00	0.37	2.56	3.68	0.31	14.79
1883	1.81	1.00	3.25	0.62	2.81	0.00	0.00	0.00	0.75	0.75	0.86	0.44	12.29
1884	3.06	2.81	5.94	3.81	0.00	0.68	0.00	0.00	0.19	1.62	0.00	5.75	23.86
1885	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	T	T	9.34	5.03	15.74
1886	5.32	0.49	1.50	4.93	0.15	0.00	0.00	T	0.00	0.89	0.04	1.99	15.31
1887	1.12	6.75	0.96	2.22	0.01	3.04	0.00	T	0.01	0.00	1.00	3.02	18.13
1888	4.97	0.70	2.83	0.04	0.55	0.15	0.03	T	0.82	0.00	3.27	5.25	18.61
1889	0.14	0.30	......	......	......	......	......	......	......	......	......	......	......
Means	3.36	2.44	2.62	2.76	0.54	0.40	T	T	0.26	0.75	2.00	3.42	18.55

NILES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	......	......	......	......	2.04	......
1871	2.00	2.12	0.27	0.82	0.00	0.00	0.00	0.00	0.00	0.05	1.56	11.91	18.73
1872	2.15	4.32	1.30	0.94	0.00	0.42	0.00	T	0.00	0.11	2.00	5.00	16.24
1873	1.07	5.15	0.66	0.32	0.00	0.00	0.00	0.00	0.00	0.66	0.55	4.00	12.41
1874	3.53	0.82	3.14	1.40	0.00	0.00	0.00	0.00	0.07	2.44	4.33	0.00	15.73
1875	3.44	0.23	0.69	0.00	0.13	0.48	0.00	0.00	0.00	0.10	8.83	3.52	17.42
1876	4.36	4.12	3.40	0.85	0.70	0.00	0.00	0.00	0.00	2.75	0.15	0.00	16.33
1877	3.03	0.67	1.02	0.42	1.30	0.00	0.00	0.00	0.00	0.23	1.16	1.96	9 79
1878	7.67	8.50	3.58	1.50	0.07	0.00	0.00	0.00	0.00	0.71	0.43	0.31	22.80
1879	3.10	2.66	3.89	2.09	1.24	0.08	0.00	0.00	0.00	0.67	1.57	3.41	18.71
1880	1.94	1.29	1.60	5.87	1.35	0.00	0.00	0.00	0.00	0.00	0.63	9.03	21.71
1881	4.36	3.08	1.06	1.53	0.00	0.37	0.00	0.00	0.08	0.38	0.87	2.59	14.32
1882	1.52	1.74	4.75	1.17	0.45	T	0.00	0.00	0.44	1.29	2.30	0.81	14.47
1883	1.44	0.30	2.77	1.46	2.99	0.00	0.00	0.00	0.71	1.47	0.88	1.21	13.23
1884	3.78	6.18	5.41	3.74	0.18	2.69	0.00	0.00	0.34	1.30	0.00	5.75	29.37
1885	1.58	0.15	0.66	0.92	0.00	0.00	0.00	0.00	0.00	0.35	8.78	1.92	14.36
1886	6.17	0.63	1.72	4.18	0.18	0.00	0.00	0.00	0.00	0.57	1.27	1.15	15.87
1887	1.20	9.44	0.83	1.27	0.07	0.00	0.00	0.00	0.54	0.00	0.93	[3.74]	[18.02]
1888	[3.22]	[2.90]	2.83	0.23	0.60	0.50	0.00	0.00	[0.00]	0.00	3.70	2.32	[16.30]
1889	0.46	0.37	6.00	0.82	2.10	0.00	0.00	0.00	0.00	0.48	3.46	12.41	26.10
1890	7.20	3.42	3.00	1.16	1.12	0.00	......	......	......	......	......	......	......
Means	3.16	2.90	2.43	1.53	0.60	0.23	0.00	T	0.12	0.71	2.28	3.66	17.62

***Monthly and annual precipitation at stations in California*—Continued.**

NORDHOFF, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	0.04	0.00	0.00	0.00	0.36	1.10	0.78	......
1887	0.22	16.81	0.44	1.88	0.18	......	......	......	......	......	1.63	5.29	......
1888	7.46	1.28	5.47	0.54	0.26	......	......	......	......	0.00	5.96	7.22	......
1889	0.00	......	......	......	......	......	......	......	......	......	......	......	......
Means*	4.07	5.69	4.65	3.06	1.08	0.48	0.00	0.00	0.00	0.35	4.58	3.24	27.20

*Monthly data for 4 years prior to June, 1886, not now available. The averages for the 4-year period have, however, been included in the means here given.

NORTH BLOOMFIELD, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	0.00	0.00	0.00	1.61	3.24	4.31	......
1871	7.54	5.94	5.03	4.36	3.36	0.12	0.00	0.00	0.00	0.83	6.20	25.19	58.57
1872	12.71	18.22	5.73	3.84	1.39	0.41	0.00	0.00	0.16	0.53	4.47	11.77	59.23
1873	4.16	11.09	2.50	2.40	1.57	0.00	0.10	0.00	0.00	0.67	3.37	19.00	44.86
1874	15.17	7.08	11.16	4.04	1.78	0.25	0.00	0.02	0.06	4.88	13.52	1.21	59.17
1875	0.15	0.88	3.56	0.30	2.68	0.63	0.00	0.00	0.00	2.09	15.53	7.64	33.46
1876	10.98	10.20	13.02	4.03	1.06	0.01	1.76	0.01	0.31	10.46	0.85	0.00	52.69
1877	9.98	2.89	4.92	3.07	2.66	0.91	0.00	0.00	0.00	1.10	4.22	1.96	31.71
1878	15.72	16.97	9.23	2.44	0.95	0.00	0.00	0.00	0.00	3.34	3.72	1.18	53.55
1879	10.00	9.49	16.62	6.69	3.84	0.64	0.00	0.24	0.00	3.03	6.43	13.57	70.55
1880	5.96	5.66	5.45	23.31	5.63	0.00	0.00	0.00	0.00	0.00	0.41	21.10	67.52
1881	19.46	12.13	4.92	2.59	1.33	1.57	0.00	0.00	1.75	3.86	4.05	8.73	60.39
1882	8.02	6.77	10.02	5.39	1.82	0.00	0.00	0.00	2.74	6.86	5.72	3.59	50.93
1883	3.69	3.94	10.45	3.39	0.00	0.00	0.00	0.00	1.79	3.66	1.48	2.84	31.24
1884	9.21	10.02	15.65	10.31	2.66	4.03	0.00	0.00	1.98	3.43	0.00	37.21	94.50
1885	3.65	1.91	0.79	3.62	0.71	2.14	0.00	0.00	2.55	0.00	20.23	7.98	43.58
1886	13.49	1.78	2.18	12.26	1.15	0.00	......	......	......	......	......	......	......
Means	9.37	7.81	7.58	5.75	2.04	0.67	0.12	0.02	0.71	2.90	5.84	10.46	53.27

NORWALK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.22	1.19	4.29	0.27	0.20	0.00	0.00	0.00	0.00	2.61	1.47	9.71	19.96
1890	3.32	1.08	0.45	0.13	0.05	0.03	......	......	......	......	......	......	......
Means	1.77	1.14	2.37	0.20	0.12	0.02	0.00	0.00	0.00	2.61	1.47	9.71	19.41

OAKLAND, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	......	0.31	0.60	10.18	......
1874	5.60	1.80	5.25	1.25	0.75	0.00	0.00	0.00	0.00	2.24	9.18	0.31	26.38
1875	6.15	0.30	1.65	0.00	0.10	1.61	0.00	0.00	0.00	0.30	7.84	4.10	22.08
1876	5.28	4.87	4.55	0.93	0.45	0.24	0.10	0.00	0.15	4.74	0.25	0.00	21.56
1877	4.19	1.42	0.96	0.22	0.30	0.00	0.18	0.00	0.00	0.45	1.62	1.75	11.09
1878	10.82	11.63	4.30	1.18	0.40	T	0.00	0.00	0.00	1.85	0.65	0.31	31.14
1879	4.34	5.65	7.96	1.17	1.39	0.15	0.00	0.00	0.00	0.70	2.98	5.06	29.40
1880	1.71	2.19	1.70	8.46	1.04	0.00	0.00	0.00	0.57	0.00	0.35	12.57	28.59
1881	10.48	3.95	0.88	1.40	0.40	1.16	0.00	0.00	0.40	0.82	1.49	5.09	26.07
1882	2.42	2.05	4.20	1.51	0.15	T	0.00	0.00	0.42	2.65	4.33	1.14	18.87
1883	1.95	0.70	3.33	2.20	3.50	0.00	0.00	0.00	1.00	1.03	0.90	1.15	15.76
1884	3.81	5.25	8.59	5.79	0.55	3.03	T	0.25	0.35	2.80	0.05	7.73	38.20
1885	1.92	0.48	1.07	3.12	0.10	0.08	0.02	0.00	0.05	0.30	11.11	4.33	22.58
1886	8.12	0.30	2.57	5.11	0.30	0.00	0.15	0.00	0.05	1.59	0.45	3.60	22.24
1887	1.57	7.83	0.71	2.35	0.10	0.05	0.01	0.00	0.27	0.00	0.78	3.22	16.89
1888	6.42	1.02	4.44	0.10	0.38	0.46	0.00	0.00	0.92	0.06	3.52	4.82	22.14
1889	0.90	0.63	7.60	0.93	1.92	0.07	0.00	0.00	0.00	7.30	2.89	13.38	35.02
1890	10.22	5.72	3.52	1.18	1.17	0.00	......	......	......	......	......	......	......
Means	5.05	3.28	3.72	2.17	0.76	0.40	0.03	0.02	0.26	1.60	2.88	4.63	24.80

Monthly and annual precipitation at stations in California—Continued.

ONTARIO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	......	......	......	......	......	......	......	......	......	......	......	2.32	......
1884	2.81	11.87	8.10	4.08	0.97	0.85	0.00	0.00	0.00	0.12	0.48	3.78	33.56
1885	1.50	0.10	0.00	1.34	0.00	0.00	0.00	0.00	0.00	......	......	......	......
1886	......	......	......	......	......	......	......	......	......	......	1.40	......	......
1887	0.11	5.26	0.04	2.11	0.24	0.00	0.00	......	......	......	......	......	......
1889	[2.49]	1.06	9.80	0.39	1.10	0.00	0.00	0.00	0.00	2.72	[0.94]	12.54	[31.04]
1890	5.53	2.03	1.25	0.01	......	0.00	......	......	......	......	......	......	......
Means	2.49	4.26	3.84	1.59	0.58	0.17	0.00	0.00	0.00	1.42	0.94	6.21	21.50

ORANGE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	......	......	......	......	......	......	......	......	......	1.25	......
1885	......	......	0.32	0.94	0.58	0.00	0.00	0.07	0.00	0.02	2.84	1.19	......
1886	6.83	1.83	2.04	2.17	0.08	......	......	......	......	......	......	......	......
Means	6.83	1.83	1.18	1.56	0.33	0.00	0.00	0.07	0.00	0.02	2.84	1.22	15.88

ORLAND, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	0.52	0.27	1.49	0.86	2.07	0.02	0.00	0.00	0.80	1.60	0.12	0.29	8.04
1884	3.38	1.58	4.31	2.97	0.23	2.55	0.00	0.00	0.20	0.80	0.00	4.03	20.05
1885	1.34	0.58	0.00	0.51	0.82	0.50	0.00	0.00	0.22	0.00	9.41	3.03	16.41
1886	4.45	0.50	1.01	2.70	0.64	0.00	0.00	0.00	0.00	0.50	T	1.77	11.57
1887	0.33	3.74	1.63	2.06	0.00	0.15	0.00	T	0.00	0.00	1.14	2.64	11.69
1888	4.11	1.56	2.73	0.57	0.24	0.53	0.00	0.00	0.27	0.00	2.79	3.47	16.27
1889	0.22	0.58	4.52	1.02	1.37	0.38	0.00	0.00	0.00	7.96	2.20	6.80	25.05
1890	3.29	1.63	3.59	0.53	1.75	......	......	......	......	......	......	......	......
Means	2.12	1.85	2.37	1.52	0.77	0.37	0.00	0.00	0.18	1.20	2.12	3.55	16.05

ORLEANS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	......	......	......	......	......	......	......	......	0.17	12.60	......
1885	5.71	5.16	0.85	2.48	0.36	0.92	0.00	0.00	0.00	0.96	18.82	9.73	44.99
1886	11.61	2.41	3.45	8.93	1.69	0.00	0.64	0.00	0.16	2.69	0.74	6.91	39.23
1887	......	4.20	2.78	3.99	2.49	1.21	......	......	......	......	......	......	......
Means	8.66	3.92	2.36	5.13	1.51	0.71	0.32	0.00	0.08	1.82	6.58	9.75	40.84

OROVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	......	......	......	......	......	......	0.00	0.00	0.00	0.00	0.58	10.60	......
1881	7.15	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.37	1.27	0.57	4.69	14.96
1882	2.01	4.64	2.34	2.57	0.00	0.00	......	......	......	......	......	......	......
1884	......	......	......	......	......	......	......	......	2.27	2.08	0.05	9.33	......
1885	2.10	0.73	0.25	1.64	0.65	0.39	T	0.00	0.20	T	12.07	5.53	23.56
1886	5.17	0.36	2.70	5.48	0.50	0.00	T	T	0.00	0.63	0.29	2.52	17.65
1887	1.02	8.93	0.98	2.81	0.08	0.18	T	0.01	0.15	0.00	1.21	2.62	17.99
1888	7.72	0.99	3.44	0.14	0.32	1.16	0.07	T	0.63	0.00	4.14	7.91	26.52
1889	0.16	0.57	8.98	1.61	3.07	0.42	0.00	0.00	0.00	7.41	4.89	13.50	40.61
1890	......	5.95	7.07	2.47	3.84	0.45	......	......	......	......	......	......	......
Means	3.62	2.88	3.22	2.09	1.06	0.32	0.01	T	0.45	1.42	2.98	7.09	25.14

OTAY MESA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	......	......	......	......	......	......	......	......	0.45	3.30	......
1885	0.86	......	0.15	0.84	......	......	......	......	......	......	......	......	......
1886	3.79	1.08	3.32	1.62	0.02	......	......	......	......	......	......	......	......
1887	0.06	6.29	......	......	......	......	......	......	......	......	......	......	......
Means*	2.32	2.40	1.73	1.86	0.69	0.08	0.10	2.15	0.00	0.36	1.45	1.30	14.50

*The monthly data for 2 years and 3 months, Nov., 1884, to Feb., 1887, are not now available. The averages, however, have been included in the data here given.

Monthly and annual precipitation at stations in California—Continued.

PAJARO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	0.00	0.00	0.00	7.07	....
1874	4.77	1.45	3.14	1.66	0.40	0.00	0.00	0.00	0.00	2.83	3.00	0.00	17.25
1875	4.88	0.20	0.88	0.03	0.09	0.50	0.00	0.00	0.00	0.00	7.16	2.13	15.87
1876	7.80	4.13	4.72	0.23	0.00	0.00	0.00	0.00	0.00	1.60	0.00	0.00	18.48
1877	2.83	0.22	0.72	0.16	0.00	0.00	0.00	0.00	0.00	0.00	1.26	0.95	6.14
1878	10.27	10.26	3.57	1.70	0.00	0.00	0.00	0.00	0.50	0.98	0.20	0.30	27.78
1879	3.99	4.73	3.84	1.47	1.28	0.08	0.00	0.00	0.00	0.97	1.68	2.88	20.92
1880	1.43	1.43	1.79	6.09	0.36	0.00	0.00	0.00	0.00	0.05	0.48	8.91	20.45
1881	5.58	2.43	0.99	0.95	0.00	0.52	0.00	0.00	0.31	0.00	0.89	3.44	15.11
1882	1.41	1.62	5.43	1.12	0.28	0.00	0.00	0.00	0.00	3.20	2.13	0.80	15.99
1883	2.87	1.45	2.27	0.80	3.29	0.07	0.00	0.00	0.33	0.92	0.68	1.05	13.73
1884	2.68	6.33	5.83	3.61	0.32	1.47	0.00	0.15	0.00	1.92	0.20	7.45	29.96
1885	1.71	0.15	0.22	0.96	0.00	0.12	0.13	0.00	0.05	0.00	7.91	4.08	15.33
1886	6.05	0.47	3.20	5.25	0.04	0.00	0.00	0.00	0.00	0.85	0.60	1.24	17.70
1887	1.57	5.95	0.61	2.03	0.00	0.00	0.00	0.00	0.58	0.00	0.87	3.44	15.05
1888	4.59	0.91	4.27	0.47	0.58	T	0.00	0.00	0.79	0.00	3.29	2.80	17.70
1889	0.56	0.76	4.80	0.87	1.89	0.00	0.00	0.00	0.00	5.61	2.67	14.12	31.28
1890	9.08	5.11	2.13	0.69	0.47	0.00	......	......	......	......	......	......	....
Means	4.24	2.80	2.85	1.65	0.53	0.16	0.01	0.01	0.15	1.11	1.94	3.57	19.02

PASO ROBLES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	0.37	0.69	....
1887	0.51	6.14	0.34	1.10	0.44	0.00	0.00	0.00	0.00	0.21	0.60	2.61	11.95
1888	5.60	0.30	4.50	0.20	0.28	0.00	0.00	0.00	0.01	0.00	4.02	2.80	17.71
1889	0.78	0.98	5.55	0.45	1.25	0.00	0.00	0.00	0.00	5.61	[1.66]	9.13	[25.41]
1890	6.75	5.40	1.74	0.03	0.22	0.00	......	......	......	......	......	......	....
Means	3.41	3.20	3.03	0.44	0.55	0.00	0.00	0.00	T	1.94	1.66	3.81	18.04

PETALUMA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	......	......	1.83	13.87	....
1872	6.50	7.39	1.49	0.62	0.00	0.05	0.00	0.01	0.00	0.07	1.65	6.27	24.05
1873	2.54	3.22	......	......	......	......	......	......	......	0.32	1.28	10.81	....
1874	7.69	2.35	2.32	1.03	0.40	0.00	0.00	0.00	0.00	2.48	5.70	0.15	22.12
1875	6.01	0.55	1.35	0.00	0.30	1.64	0.00	0.00	0.00	0.10	5.48	2.80	18.23
1876	6.36	5.02	4.32	1.19	0.32	0.00	0.00	0.00	0.00	5.20	0.00	0.00	22.41
1877	5.24	1.44	0.52	0.12	0.27	T	0.06	0.00	0.00	0.75	1.94	3.13	13.47
1878	15.62	11.99	4.49	0.91	0.34	0.00	0.00	0.00	0.23	1.18	0.83	0.40	35.99
1879	3.55	4.78	7.48	1.63	1.54	0.00	0.00	0.00	0.00	0.28	3.90	3.93	27.09
1880	2.69	1.57	1.77	9.74	1.12	0.00	0.00	0.00	0.00	0.00	0.07	9.39	26.35
1881	8.13	3.99	0.96	1.65	0.00	0.36	0.00	0.00	0.30	0.54	1.81	4.12	21.86
1882	3.04	3.05	2.58	1.29	0.31	0.00	0.00	0.00	0.35	1.72	3.80	1.17	17.31
1883	2.73	0.66	3.58	1.69	2.99	0.00	0.00	0.00	0.30	1.06	0.41	0.56	13.98
1884	4.85	3.96	4.86	5.53	0.31	2.80	0.00	0.02	0.13	0.94	0.12	8.07	31.59
1885	1.34	0.76	1.39	2.08	0.04	0.14	0.00	0.00	0.04	0.90	11.36	3.26	21.28
1886	6.09	0.00	2.30	4.47	0.54	0.00	0.00	0.00	0.02	0.69	0.57	1.21	15.89
1887	1.25	10.43	0.79	1.46	0.00	0.00	0.00	0.00	0.68	0.00	1.79	3.30	19.70
1888	3.72	2.10	4.85	0.36	1.00	0.30	0.00	0.00	1.24	0.00	[2.59]	5.83	[21.99]
1889	0.71	0.72	7.36	1.34	2.68	0.18	0.00	0.00	0.00	9.33	4.17	10.12	36.61
1890	10.05	4.90	4.94	1.24	1.29	0.00	......	......	......	......	......	......	....
Means	5.16	3.57	3.19	2.02	0.75	0.30	T	T	0.19	1.42	2.59	4.65	23.84

PIGEON POINT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	0.00	0.00	5.04	1.98	....
1876	5.53	2.95	4.65	0.85	0.50	0.00	0.00	0.00	0.00	2.20	0.00	0.00	16.68
1877	3.83	0.71	1.78	0.00	0.63	0.00	0.00	0.00	0.00	0.23	1.46	3.83	12.47
1878	10.14	15.04	4.54	1.94	0.10	0.00	0.00	0.00	0.00	1.80	0.45	[2.66]	[36.67]
1879	1.52	2.18	0.00	2.42	2.36	0.00	0.00	0.00	0.00	0.95	4.18	4.49	19.00
1880	3.62	5.23	3.55	10.00	1.06	0.00	0.00	0.00	0.00	0.00	0.31	6.64	24.41
1881	3.01	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	1.07	3.37	9.90

Monthly and annual precipitation at stations in California—Continued.

PIGEON POINT, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	2.34	2.00	4.45	1.32	0.51	0.07	0.07	0.00	0.43	1.25	2.11	2.00	16.48
1883	1.05	0.55	1.90	1.70	2.45	0.22	0.00	0.00	0.40	0.46	0.75	1.00	10.48
1884	1.25	2.44	4.22	3.71	0.20	1.82	0.00	0.00	0.30	2.34	0.48	4.64	21.40
1885	0.88	0.50	0.54	2.42	0.12	0.00	0.07	0.00	0.15	0.20	3.62	1.28	9.71
1886	4.59	0.62	2.36	5.20	0.45	0.00	0.00	0.00	0.00	1.68	0.35	0.72	15.92
1887	0.87	5.86	0.18	1.58	0.00	0.00	0.00	0.00	0.05	0.00	1.34	1.91	11.79
1888	5.49	1.04	3.80	......	1.52	0.26	......	......	......	......	......	......	......
Means	3.39	3.16	2.45	2.60	0.76	0.18	0.01	0.00	0.10	0.90	1.63	2.66	17.84

PILARCITOS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864	......	......	......	......	......	......	......	......	0.00	0.00	13.61	23.09	......
1865	5.71	6.12	3.12	1.23	1.87	0.00	0.00	0.00	0.00	1.29	10.90	3.71	33.95
1866	24.46	6.30	9.18	0.45	2.91	0.00	0.00	0.00	0.00	0.00	7.81	18.87	69.98
1867	11.63	15.57	3.30	2.38	3.71	0.00	0.00	0.00	0.65	1.61	8.12	26.52	73.49
1868	13.54	8.45	16.79	4.67	0.43	1.01	0.00	0.00	0.00	0.25	2.59	7.48	55.21
1869	15.18	7.49	7.06	6.21	2.00	0.00	0.00	0.00	0.00	5.92	3.97	9.49	57.32
1870	11.03	9.78	4.60	3.31	1.11	0.00	0.00	0.00	0.39	0.37	2.70	5.98	39.27
1871	8.39	8.86	6.20	3.79	2.23	0.00	0.00	0.00	0.00	0.20	5.93	41.87	77.47
1872	6.05	16.38	3.97	3.46	0.09	0.33	0.00	0.00	0.12	0.30	4.48	19.27	45.45
1873	3.91	9.41	2.52	1.52	0.56	0.00	0.28	0.00	0.00	1.82	1.85	15.02	36.89
1874	12.20	5.24	8.37	2.84	1.88	0.91	0.00	0.00	0.00	4.10	16.00	1.69	53.14
1875	15.04	0.74	5.34	0.11	0.94	1.18	0.00	0.00	0.00	0.65	16.94	8.93	49.87
1876	14.67	10.33	12.04	1.77	1.53	0.07	0.00	0.07	0.93	6.85	0.54	0.00	48.80
1877	5.28	2.08	4.81	0.85	1.45	0.00	0.28	0.00	0.00	1.34	3.83	5.01	24.93
1878	21.43	25.28	11.60	2.87	0.46	0.00	0.00	0.00	1.57	2.37	1.61	2.06	69.25
1879	9.69	13.31	19.71	4.67	3.13	0.00	0.00	0.00	0.13	2.44	6.74	11.71	71.53
1880	6.50	4.09	3.63	20.06	3.78	0.00	0.00	0.00	0.00	0.18	0.65	29.66	68.55
1881	17.00	8.82	2.25	2.53	0.38	1.67	0.00	0.00	0.92	2.71	2.88	11.09	50.25
1882	5.94	5.39	7.66	4.77	0.55	0.00	0.00	0.00	1.44	4.70	7.67	3.22	41.34
1883	5.08	1.26	6.97	2.85	6.01	0.11	0.00	0.00	1.70	3.12	2.91	2.29	32.30
1884	7.66	10.50	18.06	10.26	0.69	4.50	0.00	0.00	......	......	......	......	......
Means	11.02	8.77	7.86	4.03	1.79	0.49	0.03	T	0.39	2.01	6.09	12.35	54.83

PINE VALLEY (VIEJAS), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	......	......	2.02	......
1876	7.04	5.68	5.97	0.87	0.00	0.00	0.12	0.14	0.03	0.04	......	......	......
Means	7.04	5.68	5.97	0.87	0.00	0.00	0.12	0.14	0.03	0.04	......	2.02	......

PLACERVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	12.58	4.72	10.77	3.92	1.96	0.00	0.00	0.00	0.00	3.42	9.59	1.18	48.14
1875	12.58	0.08	2.88	0.61	1.58	1.84	0.00	0.00	0.00	1.20	17.64	6.75	45.16
1876	10.79	8.01	11.86	3.60	1.40	0.00	0.49	0.07	0.02	6.16	0.78	0.00	43.18
1877	10.54	1.17	0.00	4.00	0.00	0.00	......	......	......	......	......	......	......
1879	......	......	......	......	......	......	......	......	......	3.47	5.28	7.53	......
1880	4.38	5.81	4.66	17.52	3.95	0.00	0.00	0.00	0.00	0.35	0.58	16.94	54.19
1881	15.53	7.01	3.38	2.36	T	1.89	T	0.00	1.08	2.80	2.87	7.70	44.62
1882	6.71	5.15	9.30	5.53	1.19	0.13	T	0.00	0.93	5.72	4.94	1.98	41.58
1883	3.74	2.58	6.88	3.54	6.25	0.00	T	0.00	1.67	3.38	1.67	2.63	32.34
1884	6.06	11.56	14.46	11.82	1.60	2.51	T	0.03	0.85	2.47	0.10	22.65	74.11
1885	4.15	0.97	0.33	3.32	0.27	1.42	0.00	0.09	0.55	0.00	15.97	5.22	32.20
1886	13.03	1.15	5.22	11.75	1.24	0.50	T	0.00	0.00	1.42	0.91	5.02	40.24
1887	3.18	14.18	2.09	5.71	0.53	0.28	0.00	0.00	0.58	0.06	1.42	8.34	36.37
1888	11.27	2.39	5.26	0.91	1.10	1.50	0.04	T	0.88	T	5.98	7.06	36.39
1889	1.03	0.86	9.78	1.93	8.05	0.16	0.00	T	0.00	9.07	7.77	18.18	56.83
1890	14.57	7.46	13.81	3.36	4.01	0.00	......	......	......	......	......	......	......
Means	8.68	4.87	6.71	5.32	2.21	0.68	0.04	0.01	0.50	2.82	5.39	7.94	45.17

Monthly and annual precipitation at stations in California—Continued.

PLEASANTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	0.00	0.00	0.50	0.67	1.03	......
1878	7.93	8.88	2.78	1.00	0.04	0.00	0.00	0.00	0.02	0.21	0.65	0.07	21.58
1879	3.66	2.68	6.17	1.21	1.17	0.08	0.00	0.00	0.00	0.80	1.57	3.10	20.44
1880	2.66	1.75	1.77	8.50	0.84	0.00	0.00	0.00	0.00	0.01	0.67	10.61	26.81
1881	3.39	2.37	0.91	1.36	0.00	0.26	0.00	0.00	0.13	0.53	0.86	2.95	12.76
1882	1.17	1.38	5.49	1.47	0.48	0.00	0.04	0.00	0.00	2.39	2.21	0.62	15.25
1883	1.53	0.63	3.04	1.67	2.73	0.00	0.00	0.00	0.35	1.47	0.33	0.65	12.40
1884	3.41	6.18	6.53	3.14	0.05	1.78	0.00	0.09	0.08	0.99	0.00	4.47	26.72
1885	1.78	0.22	1.14	1.09	0.04	0.16	0.00	0.00	0.00	0.05	7.33	2.17	13.98
1886	4.25	0.29	1.34	3.08	0.39	0.00	0.00	0.00	0.00	0.39	0.73	0.87	11.34
1887	0.79	5.93	0.68	1.52	0.00	0.00	0.00	0.00	0.29	0.00	0.55	2.63	12.39
1888	3.23	[2.81]	2.25	0.20	0.50	[0.21]	0.00	0.00	0.62	0.00	5.15	1.85	[16.82]
1889	0.60	0.48	4.55	0.62	1.36	0.00	0.00	0.00	0.00	3.63	[1.73]	10.34	[23.31]
1890	6.05	2.93	[3.05]	2.24	0.37	......	......	......	......	......	......	......	......
Means	3.11	2.81	3.05	2.08	0.61	0.21	0.00	T	0.11	0.84	1.73	3.18	17.73

POINT ARENA LIGHT-HOUSE, CAL.

1875	......	......	......	......	......	......	......	......	0.00	2.07	10.18	2.78	......
1876	9.99	9.90	11.05	2.50	1.76	0.11	0.00	0.08	0.48	4.91	0.05	0.00	40.83
1877	6.28	3.83	2.41	0.60	1.03	0.74	0.13	0.00	0.00	1.73	3.15	4.31	24.21
1878	18.40	17.26	8.27	0.00	0.12	0.00	0.00	0.00	0.85	1.44	1.98	1.06	49.38
1879	3.05	4.08	8.56	2.31	1.51	0.07	0.00	0.00	0.13	1.58	5.17	7.23	33.69
1880	3.96	2.10	4.46	8.04	1.21	0.00	0.00	0.00	0.00	0.20	0.60	9.13	29.70
1881	7.02	5.62	1.17	1.07	0.26	0.20	0.00	0.00	0.41	1.84	0.79	5.03	23.41
1882	2.10	5.46	3.38	3.06	0.00	0.00	0.00	0.00	0.44	3.00	3.16	2.06	22.66
1883	1.74	1.10	2.74	2.68	1.04	0.00	0.00	0.00	0.25	1.09	0.42	1.75	12.81
1884	5.59	3.92	5.32	6.48	0.26	1.13	0.00	0.00	0.61	0.85	0.90	8.74	33.80
1885	1.94	2.42	0.28	1.34	0.07	0.20	0.00	0.00	0.67	0.99	15.64	9.90	33.45
1886	7.70	1.19	5.61	7.47	1.70	0.00	0.00	0.00	0.00	1.07	0.55	4.68	29.97
1887	3.07	5.04	1.69	3.20	0.62	0.21	0.00	0.00	0.07	0.00	2.31	3.68	19.89
1888	11.41	1.29	2.95	0.25	0.75	2.70	0.36	0.00	0.54	0.15	3.33	5.78	29.97
1889	1.02	1.41	10.89	1.44	3.82	0.15	0.00	0.00	0.00	7.25	2.81	13.49	42.28
1890	11.20	4.57	6.58	2.64	1.56	0.00	0.00	0.00	0.50	0.25	0.12	4.05	31.47
Means	6.30	4.61	5.02	2.87	1.05	0.37	0.03	T	0.31	1.78	3.20	5.23	30.77

POINT BONITA LIGHT-HOUSE, CAL.

1875	......	......	......	......	......	......	......	......	0.07	0.26	6.70	3.56	......
1876	5.69	4.96	4.46	1.05	0.26	0.00	0.00	0.00	0.42	4.15	0.35	0.00	21.34
1877	5.89	1.19	4.78	0.50	0.98	0.14	0.39	0.00	0.00	2.73	3.75	2.27	22.62
1878	9.34	14.10	5.51	0.76	0.28	0.00	0.00	0.00	1.22	1.02	0.68	0.64	33.55
1879	3.90	4.54	0.79	1.68	1.72	0.09	0.00	0.00	0.00	0.84	4.32	4.49	22.37
1880	3.54	2.20	2.39	8.59	0.87	0.00	0.00	0.00	0.00	0.07	0.36	9.90	27.92
1881	6.89	4.44	1.09	2.48	0.00	0.97	0.00	0.00	0.37	1.20	1.83	3.62	22.89
1882	2.29	2.97	3.24	1.93	0.55	0.00	0.00	0.00	0.37	2.23	4.71	1.97	20.26
1883	2.52	1.11	3.71	2.19	4.36	0.13	0.00	0.00	0.34	2.02	2.13	0.93	19.44
1884	4.54	5.78	8.55	5.70	0.30	2.99	0.00	0.00	0.34	2.56	0.56	9.03	40.35
1885	2.42	......	1.10	3.73	0.16	0.00	0.00	0.00	0.00	0.84	9.22	4.56	22.03
1886	8.37	0.79	1.20	3.98	0.59	0.00	0.00	0.00	0.00	1.56	0.70	2.53	19.72
1887	1.56	10.41	1.22	2.06	0.00	0.31	0.00	0.00	0.40	0.00	1.11	3.12	[20.19]
1888	6.96	1.46	3.85	0.28	0.63	0.45	0.00	0.00	1.94	0.40	5.52	6.73	20.19
1889	1.34	1.08	8.40	1.26	3.48	0.11	0.00	0.00	0.00	9.97	4.28	16.72	46.64
1890	9.74	4.41	4.45	1.42	1.08	0.17	0.00	0.00	0.00	0.00	0.00	3.59	[24.86]
Means	5.00	4.25	3.65	2.51	1.02	0.36	0.03	0.00	0.34	1.87	2.89	4.60	[24.23]

POINT CONCEPTION LIGHT-HOUSE, CAL.

1876	......	......	......	......	......	......	......	......	0.00	0.50	0.00	0.20	......
1877	0.87	0.01	0.66	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.70	5.06	7.36
1878	3.00	6.79	1.63	2.75	0.40	0.00	0.00	0.00	0.00	0.30	0.00	1.28	16.15

Monthly and annual precipitation at stations in California—Continued.

POINT CONCEPTION LIGHT-HOUSE, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	3.50	1.55	0.88	1.79	0.23	0.00	0.00	0.00	0.00	0.65	1.18	1.38	11.06
1880	0.00	12.95	1.06	2.81	0.02	0.00	0.00	0.00	0.00	0.00	0.03	2.45	9.03
1881	0.35	0.65	2.00	1.66	0.00	0.00	0.00	0.00	0.02	0.15	0.24	0.48	5.55
1882	0.58	1.85	2.44	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.01	0.97	5.85
1883	1.52	1.59	3.71	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.00	2.45	9.78
1884	5.21	10.65	9.44	2.77	0.08	1.25	0.00	0.02	0.00	1.28	0.45	3.49	34.64
1885	......	......	0.35	2.80	0.12	0.00	0.00	0.00	0.00	0.00	1.18	1.87	6.32
1886	0.79	1.22	1.96	0.00	0.40	0.00	0.00	0.17	0.00	0.04	0.48	[2.40]	[7.46]
1887	0.20	4.92	[2.65]	0.55	0.00	0.00	0.00	0.00	0.00	0.00	1.88	3.03	[13.23]
1888	6.49	0.60	3.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.24	3.06	15.04
1889	0.07	2.07	5.67	1.45	0.48	0.00	0.00	0.00	0.00	3.68	3.36	5.45	22.23
1890	5.05	4.31	1.05	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.50	2.26	13.52
Means	2.13	3.78	2.65	1.19	0.15	0.09	0.00	0.01	T	0.47	0.75	2.44	13.66

POINT MONTARA LIGHT-HOUSE, CAL.

1875	......	......	......	......	......	......	......	......	0.00	0.30	8.40	3.70	....
1876	6.46	5.62	4.62	0.65	0.43	0.00	0.00	0.00	0.40	2.77	0.29	0.00	21.24
1877	2.35	0.69	1.29	0.38	0.36	0.04	0.05	0.00	0.00	0.89	2.05	2.82	10.92
1878	10.86	10.49	4.62	1.59	0.25	0.00	0.00	0.00	0.73	1.53	0.80	0.15	31.02
1879	3.09	4.89	7.69	1.40	1.74	0.06	0.00	0.00	0.00	0.71	3.41	3.99	27.23
1880	2.37	2.11	1.42	8.24	1.01	0.00	0.00	0.00	0.01	0.00	0.27	10.09	16.96
1881	8.65	4.01	0.98	1.11	0.29	0.56	0.00	0.00	0.40	0.98	1.87	3.92	22.77
1882	1.83	2.61	3.86	2.02	0.30	0.00	0.00	0.00	0.48	2.06	4.97	2.00	20.18
1883	1.83	0.47	3.95	1.18	3.84	0.10	0.00	0.00	0.60	1.89	1.22	1.57	16.45
1884	4.10	4.77	8.39	5.05	0.50	2.83	0.00	0.00	0.55	1.87	0.29	8.82	37.17
1885	2.66	0.19	0.66	3.52	0.10	0.07	0.00	0.00	0.00	0.16	10.98	3.17	21.51
1886	5.60	0.26	3.43	4.42	0.59	0.00	0.09	0.00	0.00	1.80	0.46	2.96	18.91
1887	1.96	8.14	0.78	1.54	0.16	0.00	0.00	0.00	0.21	0.00	1.45	2.79	17.03
1888	5.63	1.56	4.59	0.01	0.43	0.53	0.00	0.00	0.95	0.21	4.30	6.19	24.40
1889	1.59	1.17	8.29	1.29	1.85	0.00	0.00	0.00	0.00	8.13	3.37	11.29	36.98
1890	6.60	3.49	4.14	1.53	1.12	0.00	0.00	0.00	0.05	0.00	0.00	2.46	19.39
Means	4.38	3.36	3.91	2.40	0.85	0.28	0.01	0.00	0.27	1.46	2.76	4.08	23.76

POINT AÑO NUEVO LIGHT-HOUSE, CAL.

1875	......	......	......	......	......	......	......	......	0.00	0.01	12.39	2.32	....
1876	7.41	4.67	4.14	0.61	0.30	0.00	0.06	0.00	0.00	1.92	0.10	0.00	19.21
1877	4.08	0.58	1.47	1.13	0.45	0.00	0.15	0.00	0.00	0.34	0.89	3.75	12.84
1878	9.07	10.46	4.85	1.76	0.00	0.00	0.00	0.00	0.49	2.37	0.34	1.13	30.47
1879	2.81	3.90	3.73	2.00	1.77	0.05	0.00	0.00	0.00	1.43	3.54	3.59	24.86
1880	1.81	2.06	1.72	8.77	0.85	0.00	0.00	0.00	0.16	1.11	0.30	13.20	22.16
1881	6.00	4.24	0.64	1.50	0.16	0.75	0.03	0.00	0.31	1.30	1.30	3.98	21.80
1882	2.21	2.16	5.75	1.85	0.20	0.00	0.00	0.00	0.50	1.53	2.04	2.11	18.35
1883	1.11	0.91	3.83	0.67	4.00	0.00	0.00	0.00	0.62	1.10	0.69	2.21	15.05
1884	2.91	4.64	7.28	5.28	0.22	2.42	0.00	0.00	0.31	1.55	0.51	8.79	33.91
1885	2.17	0.34	0.45	3.04	0.18	0.00	0.60	0.00	0.00	0.40	7.87	2.45	17.50
1886	5.16	1.88	1.61	4.15	0.18	0.00	0.00	0.00	0.00	1.45	0.75	1.95	17.13
1887	1.36	6.16	0.39	1.57	0.30	0.03	0.00	0.00	0.25	0.00	1.73	5.40	17.19
1888	7.22	0.84	4.72	0.08	0.98	0.30	0.00	0.00	0.05	0.00	4.55	4.25	22.99
1889	0.70	0.85	7.17	0.55	1.20	0.00	0.00	0.00	0.00	10.80	3.40	18.20	42.57
1890	9.05	2.10	2.25	1.00	1.30	0.00	0.00	0.00	0.00	0.00	0.00	2.77	16.47
Means	4.20	3.05	3.33	2.26	0.81	0.24	0.06	0.00	0.17	1.58	2.52	4.76	22.98

POINT REYES LIGHT-HOUSE, CAL.

1875	......	......	......	......	......	......	......	......	0.00	0.00	4.38	3.70	....
1876	5.10	3.30	3.70	1.70	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00
1877	4.62	2.16	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.10	1.14	1.21	10.03
1878	3.44	6.24	0.55	0.10	0.00	0.00	0.00	0.00	0.06	1.02	0.11	0.24	11.76
1879	1.33	4.40	5.43	1.88	1.78	0.00	0.00	0.00	0.00	0.00	6.80	3.83	25.45

Monthly and annual precipitation at stations in California—Continued.

POINT REYES LIGHT-HOUSE, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	2.30	2.10	1.76	9.01	1.38	0.00	0.00	0.00	0.00	0.37	0.39	11.43	28.74
1881	8.55	4.27	1.37	1.79	0.00	0.62	0.00	0.00	0.27	0.98	1.50	3.42	22.77
1882	2.22	3.45	2.53	0.88	0.14	0.09	0.00	0.00	0.60	1.80	4.00	1.40	17.11
1883	1.09	0.00	1.80	0.60	1.45	0.00	0.00	0.00	0.00	0.60	0.50	0.52	6.56
1884	1.48	3.20	5.60	2.45	0.10	1.75	0.00	0.00	0.00	0.90	0.30	3.33	19.11
1885	2.01	1.00	0.75	1.75	0.00	0.00	0.00	0.00	0.00	0.13	6.71	1.38	13.73
1886	4.05	0.13	0.60	2.53	0.95	0.00	0.13	0.00	0.00	0.55	1.45	1.76	12.15
1887	0.35	3.90	0.55	1.00	0.05	0.00	0.00	0.00	0.00	....	0.43	0.43	....
1889	....	0.03	....	....	3.30	0.00	0.67	0.42	0.45	8.22	4.89	9.35	....
1890	9.00	3.75	6.79	1.79	2.12	0.00	0.00	0.00	0.00	0.00	0.00	1.37	24.82
Means	3.89	2.78	3.00	1.91	1.12	0.19	0.10	0.06	0.11	1.53	2.34	3.44	20.47

POMONA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	....	....	....	....	....	....	0.00	0.01	0.02	1.50	0.05	2.37	....
1884	7.25	11.41	10.99	4.50	0.50	0.87	0.00	0.02	0.00	0.35	0.76	4.97	41.62
1885	1.87	0.35	0.00	2.13	0.12	0.00	0.00	0.00	0.00	0.46	4.13	1.41	10.47
1886	8.32	2.49	2.96	4.02	0.00	0.00	0.00	0.06	0.00	0.17	1.17	0.27	19.46
1887	0.28	7.56	0.00	2.47	0.05	0.00	0.00	0.00	0.04	0.34	1.14	3.59	15.47
1888	7.76	1.66	6.15	0.34	0.08	0.00	0.03	0.00	0.00	0.07	4.29	5.46	25.84
1889	0.29	1.40	9.53	0.70	0.84	0.00	0.00	0.09	0.02	3.69	1.85	12.68	31.09
1890	6.73	2.84	0.83	0.12	0.06	0.02	0.00	....	....	....	....	....	....
Means	4.64	3.96	4.35	2.04	0.24	0.13	T	0.03	0.01	0.94	1.91	4.39	22.64

PORTERSVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	....	....	....	....	....	....	....	0.00	T	0.00	....	1.62	....
1889	0.82	0.18	1.26	0.42	0.89	T	0.00	T	0.00	3.41	0.45	3.23	10.66
1890	3.43	0.49	1.30	0.12	0.20	....	....	....	....	....	....	....	....
Means	2.12	0.34	1.28	0.27	0.54	T	0.00	T	T	1.70	0.45	2.42	9.12

PORT HARFORD, CAL.

[Average of 1 year and 4 months record.]

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Means	2.86	0.48	1.21	1.84	0.00	0.00	0.00	0.00	0.00	0.00	13.62	4.12	24.13

POTTER VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	9.93	0.26	3 23	7.55	....	....	....	....	1.49	1.01	5.57	....	....
1887	2.96	8.77	1.92	3.94	0.59	0.27	....	....	0.22	....	1.49	....	....
Means	6.44	4.52	2.58	5.74	0.59	0.27	....	....	0.86	1.01	3.53	....	....

POWAY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	....	....	....	....	....	....	....	....	....	....	0.02	1.57	....
1879	2.88	1.50	0.00	1.30	0.08	0.20	0.00	0.00	0.00	0.30	2.75	4.72	13.73
1880	1.13	1.54	1.76	3.10	0.09	0.00	0.06	0.16	T	0.74	0.30	3.56	12.44
1881	1.16	0.60	2.86	1.14	0.03	0.00	0.00	0.04	0.03	1.17	0.20	0.73	7.96
1882	6.40	2.69	1.13	0.84	0.04	0.09	0.00	0.01	0.01	0.29	0.60	0.27	12.40
1883	0.88	1.76	1.87	1.36	1.34	0.00	0.00	T	0.00	1.59	0.00	2.40	11.20
1884	1.59	9.40	6.96	4.81	2.26	0.44	0.00	T	T	0.24	0.38	5.91	31.99
1885	0.72	0.35	0.34	2.05	0.63	0.07	0.00	T	0.00	0.06	2.71	0.90	7.83
1886	6.34	0.77	3.24	2.78	0.00	0.00	T	0.02	0.00	0.10	1.50	0.20	14.95
1887	0.09	4.87	0.34	2.01	0.34	0.00	0.00	T	0.63	0.00	2.04	2.70	13.02
1888	4.01	0.89	4.85	0.10	0.51	0.00	0.00	....	....	....	....	....	....
Means	2.52	2.44	2.34	1.95	0.53	0.08	0.01	0.03	0.08	0.05	1.05	2.30	13.38

Monthly and annual precipitation at stations in California—Continued.

PRINCETON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873									0.00	0.10	2.80	7.25	
1874	3.75	1.10	1.10	0.75	0.30	0.00	0.00	0.00	0.00	2.60	2.30	0.40	12.30
1875	4.30	0.15	0.30	0.00	0.05	1.75	0.00	0.00	0.00	0.75	1.95	1.85	11.10
1876	2.53	4.40	3.50	1.05	0.15	0.05	0.90	0.05	0.15	4.60	0.40	0.00	17.78
1877	1.65	1.75	0.85	0.00	0.20	0.30	0.30	0.00	0.00	0.98	1.63	1.48	9.14
1878	10.43	7.64	2.28	1.01	0.65	0.00	0.00	1.20	0.20	0.50	0.96	0.13	25.00
1879	1.83	1.71	2.44	1.56	1.10	0.12	T	0.13	0.00	0.70	2.91	2.81	15.31
1880	0.95	0.90	0.95	4.93	0.75	0.00	0.00	0.00	T	T	0.10	6.85	15.43
1881	4.30	1.78	0.83	1.15	0.11	0.43	0.02	0.00	0.54	0.60	0.22	2.51	12.49
1882	1.21	2.54	1.73	1.08	0.28	0.52	0.01	0.00	0.18	1.71	2.42	0.62	12.30
1883	0.65	0.23	2.35	1.07	2.82	0.00	0.00	0.00	0.58	0.64	0.10	0.14	8.58
1884	4.03	2.35	5.06	2.71	0.05	2.12	0.00	T	1.13	1.10	0.00	6.03	24.58
1885	1.66	0.57	0.21	0.98	0.36	0.57	0.00	0.00	0.12	0.60	7.21	4.78	17.06
1886	3.91	0.17	0.80	3.53	0.35	0.00	0.00	T	0.00	0.53	0.02	1.57	10.88
1887	0.47	5.67	0.98	1.70									
Means	2.98	2.21	1.67	1.54	0.55	0.49	0.10	0.12	0.24	1.10	1.64	2.60	15.24

PUENTE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.04	0.94	6.25	0.95	0.40	0.00	0.00	0.50	0.00	3.10	0.40	15.26	27.84
1890	6.78	2.70	0.78	0.00	0.02	0.00							
Means	3.41	1.82	3.52	0.48	0.21	0.00	0.00	0.50	0.00	3.10	0.20	15.26	28.50

RANCHO DEL JURUPA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882									0.00	0.00	2.89	7.50	
1883	0.25	0.67	3.15	0.33	1.14	0.00	0.00	0.18	0.00	0.00	0.44	2.04	8.20
1884	1.64	2.34	3.09										
Means	0.94	1.50	3.12	0.33	1.14	0.00	0.00	0.18	0.00	0.00	1.66	4.77	13.64

RAVENNA (SOUTH SIDE), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879							0.00	0.00	0.00	0.21	1.92	5.91	
1880	0.81	1.05	0.80	1.78	0.10	0.00	T	0.00	0.00	0.02	0.09	3.29	7.94
1881	0.39	0.18	0.95	0.48	0.00	0.00	0.00	0.33	0.00	0.76	0.08	0.19	3.36
1882	1.50	1.50	3.32	0.50	0.05	0.25	0.00	0.00	0.00	0.12	0.24	0.00	7.48
1883	0.30	2.20	1.25	0.00	0.16	0.00	0.00	0.00	0.24	0.70	0.00	1.94	6.79
1884	4.58	9.50	6.06	2.15	0.20	1.65	0.00	0.25	0.10	0.30	0.80	2.50	28.09
1885	0.60	0.00	0.01	0.82	0.10	0.00	0.00	0.00	0.00	0.17	5.20	0.80	7.70
1886	5.30	0.11	4.51	2.70	0.00	0.00	0.17	0.00	0.00	0.00	1.00	0.23	14.02
1887	0.14	7.37	0.00	2.55	[0.00]	0.00	0.00	0.00	0.60	1.40	0.50	1.82	[14.38]
1888	2.57	0.82	3.19	0.00	0.00	0.00	0.00	T	0.00	0.75	2.35	2.90	12.58
1889	0.70	0.42	4.93	0.32	0.38	0.00	0.00	0.38	0.42	2.18	1.20	10.78	21.71
1890	3.20	3.35	0.40	0.00	0.00	0.00							
Means	1.83	2.41	2.31	1.03	0.10	0.17	0.01	0.09	0.12	0.60	1.22	2.76	12.65

READING, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1852				2.87		1.06	0.00	0.00	0.00	0.48	8.48	11.18	
1853	4.66	3.18	7.11	4.57	0.73	0.00	0.00	0.24	0.02	0.02	2.52	2.18	25.23
1854	2.90	2.15	0.80	3.07	2.40	0.00	0.01	0.00	0.00	2.26	0.87	1.45	15.91
1855	3.69	6.95	5.68	5.17	5.43	0.20	[0.00]	0.00	0.60	0.00	1.33	8.31	[37.36]
1856	8.25	0.80	2.05										
Means	4.88	3.27	3.91	3.92	2.85	0.32	0.00	0.06	0.16	0.69	3.30	5.78	29.14

Monthly and annual precipitation at stations in California—Continued.

RED BLUFF, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	[4.37]	7.68	1.06	1.78	0.11	0.17	0.00	0.00	0.12	0.03	3.08	2.92	[21.32]
1873	1.65	4.05	0.72	0.14	0.02	0.02	0.05	0.00	T	T	1.29	6.35	14.29
1874	4.29	1.81	0.96	1.54	0.61	0.04	0.00	0.02	T	4.28	2.33	0.53	16.41
1875	2.60	0.81	2.00	0.00	0.00	0.43	0.00	T	0.00	6.36	5.21	1.26	12.67
1876	6.57	4.60	3.94	1.22	1.07	0.27	1.74	0.35	0.42	2.09	0.32	0.00	22.59
1877	2.59	1.39	3.18	1.44	0.32	0.76	0.05	0.03	0.00	1.35	3.13	3.98	18.22
1878	20.71	16.66	4.16	2.21	0.89	0.00	0.00	0.00	0.42	1.56	1.66	0.69	48.96
1879	3.18	3.67	5.39	2.12	2.18	0.30	0.04	0.28	0.00	0.48	6.05	9.95	33.64
1880	2.01	1.66	1.70	7.05	1.04	0.00	0.00	0.00	0.00	0.08	0.14	12.85	26.53
1881	9.40	2.79	0.51	1.83	0.79	0.51	T	0.00	1.07	1.61	0.73	5.69	24.93
1882	2.81	3.94	2.67	2.12	0.33	0.15	T	0.00	0.49	2.80	5.07	1.44	21.82
1883	0.87	0.39	2.60	1.96	2.96	T	0.00	T	1.04	2.68	0.74	0.52	13.76
1884	3.55	2.21	7.81	4.31	0.18	0.97	0.00	T	0.36	0.90	0.04	7.73	28.06
1885	1.84	1.19	T	0.62	0.64	1.37	0.05	0.00	2.91	0.10	17.05	3.86	29.63
1886	4.85	0.18	1.31	4.12	0.73	T	T	T	0.00	1.76	0.34	3.92	17.21
1887	0.57	5.21	1.13	1.76	0.77	0.26	T	T	0.06	0.00	1.52	2.32	13.60
1888	4.08	2.17	3.47	0.53	0.51	2.61	0.07	0.00	0.33	T	4.32	6.85	24.94
1889	0.51	0.71	6.83	1.11	2.04	0.64	0.00	0.00	0.00	8.41	3.37	9.25	32.87
1890	6.55	3.67	6.14	1.70	2.67	0.11	......	......	......	......	......	......	......
Means	4.37	3.41	2.93	1.98	0.94	0.45	0.11	0.04	0.40	1.58	3.13	4.45	23.79

REDDING, CAL.

1874	......	......	......	......	......	......	......	......	0.00	0.00	0.00	0.75	......
1875	6.21	0.16	1.41	0.01	0.14	0.24	0.00	0.00	0.00	2.11	13.31	9.13	32.72
1876	11.28	7.97	8.85	1.77	2.90	0.70	0.63	0.65	1.20	5.60	0.40	0.00	41.95
1877	6.59	3.78	4.43	0.57	1.41	0.75	0.00	0.07	0.00	1.63	7.26	4.41	30.90
1878	22.69	13.78	7.20	1.66	0.74	0.05	0.00	0.00	1.32	2.15	2.59	0.59	52.77
1879	4.20	4.81	10.54	6.82	3.56	0.48	0.03	0.11	0.00	0.75	5.96	10.85	48.11
1880	4.02	2.21	1.62	9.73	1.32	0.00	0.00	0.00	0.00	0.10	0.13	18.39	37.52
1881	14.64	9.09	0.99	5.63	0.71	1.09	0.00	0.05	1.12	4.05	1.50	6.07	44.94
1882	3.02	3.36	4.23	1.67	0.37	0.00	0.00	0.00	0.00	3.62	4.67	2.05	22.99
1883	1.78	0.36	3.71	1.56	4.26	0.00	0.00	0.00	1.00	4.09	0.67	0.75	18.18
1884	5.45	3.94	8.50	3.05	T	1.64	0.00	0.00	0.02	1.36	0.00	14.51	38.47
1885	2.32	1.28	0.00	3.63	0.00	1.23	0.00	0.00	T	0.00	11.90	9.00	29.36
1886	10.30	T	2.90	8.41	2.32	0.00	0.00	0.00	0.00	0.98	0.13	5.34	30.38
1887	2.50	8.35	1.20	3.65	1.25	0.95	0.00	0.00	0.15	0.00	1.60	4.10	23.75
1888	9.35	2.70	2.95	0.00	0.73	[0.54]	0.00	0.00	0.45	0.00	[3.68]	7.33	[27.73]
1889	[6.34]	0.09	10.78	2.33	3.90	0.96	0.00	0.00	0.00	15.13	5.07	17.66	[62.26]
1890	10.80	6.76	7.77	3.12	2.24	0.00	......	......	......	......	......	......	......
Means	6.34	4.29	4.82	3.35	1.62	0.54	0.04	0.06	0.33	2.60	3.68	6.93	34.60

REED'S CAMP, CAL.

1880	8.60	3.34	8.32	19.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.07	71.59
1881	31.76	14.14	8.04	5.99	0.80	2.66	0.00	0.00	2.17	7.16	5.65	8.00	86.37
1882	5.07	15.37	13.01	4.11	5.28	0.00	0.08	0.00	0.10	9.20	8.14	3.94	64.30
1883	1.00	0.00	14.46	8.49	9.94	0.00	0.00	0.00	0.00	6.18	1.10	4.24	45.41
1884	15.57	4.55	13.44	16.55	2.73	7.12	0.25	0.00	1.03	7.99	2.32	19.70	91.25
Means	12.40	7.48	11.45	10.88	3.75	1.96	0.07	0.00	0.66	6.11	3.44	13.59	71.79

RINGS STATION, CAL.

1874	......	......	......	......	......	......	0.00	0.00	......	......	2.55	0.78	......
1875	5.64	2.08	0.58	0.37	0.00	0.00	0.03	0.00	0.43	T	4.06	0.25	13.44
1876	9.31	5.54	6.23	0.99	0.20	0.00	0.30	0.00	0.19	0.18	0.00	0.00	22.94
1877	5.75	2.33	3.93	2.59	3.93	0.00	0.03	0.20	0.00	1.30	0.80	4.03	24.89
1878	6.03	10.49	4.41	6.86	1.33	0.26	0.00	0.00	0.00	0.00	0.97	1.52	31.87
1879	2.88	5.11	0.55	3.23	0.00	0.00	0.00	0.09	0.00	1.00	4.10	9.39	26.35

Monthly and annual precipitation at stations in California—Continued.

RINGS STATION, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	1.78	2.81	3.04	1.39	0.14	0.00	0.94	0.00	0.00	0.50	1.05	10.27	21.92
1881	2.48	1.86	3.39	2.93	0.35	0.00	0.00	0.00	0.00	1.30	0.08	0.42	12.81
1882	3.30	7.29	5.38	4.21	0.35	1.30	......	......	......	......	......	......	....
Means	4.65	4.69	3.44	2.82	0.79	0.19	0.16	0.04	0.09	0.61	1.70	3.33	22.51

RIO VISTA, CAL.

Means *	3.08	1.54	2.78	2.34	0.75	0.21	0.00	0.01	0.20	0.80	2.07	3.16	16.94

* Mean for December, 1878, to June, 1886.

RIVERSIDE, CAL.

1880	......	......	......	......	......	......	......	......	0.00	0.00	0.20	2.26	....
1881	0.48	0.25	1.30	0.74	0.03	0.00	0.00	0.00	0.10	0.40	0.25	0.40	3.95
1882	1.70	1.40	1.08	0.72	0.08	0.18	0.00	0.00	0.00	0.13	0.29	0.20	5.78
1883	0.09	0.83	0.89	0.26	0.25	0.00	0.00	0.00	0.00	0.97	0.00	2.25	5.54
1884	0.84	7.94	6.56	1.67	1.99	0.52	0.00	3.00	0.00	0.12	0.12	2.56	25.32
1885	0.77	0.00	0.01	2.15	0.24	0.00	0.00	0.00	0.00	0.02	1.34	0.62	5.15
1886	2.68	1.38	1.95	1.43	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.04	8.02
1887	0.13	3.30	0.02	1.70	0.17	0.02	0.00	0.00	0.00	0.75	0.87	0.85	7.81
1888	4.17	1.05	3.84	0.18	0.04	0.00	0.00	0.00	0.00	0.00	2.83	3.37	15.48
1889	0.87	1.30	5.10	1.83	0.25	0.00	0.00	0.00	0.09	1.35	1.82	7.80	20.41
1890	4.44	1.94	0.60	0.06	0.09	0.00	......	......	......	......	......	......	....
Means	1.62	1.94	2.14	1.07	0.31	0.07	0.00	0.33	0.02	0.37	0.83	2.04	10.74

ROCKLIN, CAL.

1870	......	3.75	2.02	1.05	0.00	0.54	0.40	0.00	0.00	0.62	0.39	1.31	....
1871	3.85	1.71	0.95	2.04	1.06	0.00	0.00	0.00	0.00	T	2.11	8.81	20.53
1872	4.96	4.66	1.46	1.05	0.40	0.45	T	0.00	0.00	0.10	2.15	5.70	20.93
1873	1.30	5.25	0.35	0.75	0.20	0.00	0.00	0.00	0.00	0.00	1.39	6.80	16.04
1874	8.90	1.68	2.81	0.70	0.50	0.00	0.00	0.00	0.00	0.63	3.31	0.35	18.88
1875	4.95	0.05	1.40	0.00	T	1.25	0.00	0.00	0.00	0.00	5.02	2.61	15.28
1876	4.12	3.56	4.00	1.30	0.31	0.00	0.25	0.20	0.00	2.87	0.60	0.00	17.21
1877	4.00	0.60	0.90	0.11	1.08	0.10	0.00	0.00	0.00	0.90	0.15	1.38	9.22
1878	7.58	7.76	4.57	1.43	0.44	0.00	0.00	0.00	0.29	0.35	0.77	0.62	23.81
1879	4.41	4.25	5.44	2.58	1.14	0.10	0.00	0.00	0.00	1.10	1.77	3.57	24.36
1880	1.33	2.04	1.98	7.53	2.20	0.00	0.00	0.00	0.00	0.00	-0.00	8.64	23.72
1881	6.90	3.33	1.10	1.20	0.00	0.15	0.00	0.00	0.30	0.92	1.55	3.54	18.99
1882	2.89	2.66	3.63	2.78	0.00	0.25	0.00	0.00	0.03	3.39	3.88	0,59	20,10
1883	1.70	0.91	3.73	1.04	3.97	0.00	0.00	0.00	1.10	1.27	0.60	0.68	15.00
1884	3.29	4.56	5.77	4.19	0.00	1.20	0.00	0.00	0.10	1.85	0.00	7.75	28.71
1885	1.36	0.40	0.00	0.82	0.11	0.18	0.00	0.00	0.03	0.00	9.32	3.96	16.18
1886	5.84	0.34	3.61	4.61	0.10	0.00	0.00	0.00	0.04	1.04	0.97	2.43	18.94
1887	0.75	6.77	1.80	3.53	0.00	0.00	0.00	0.00	0.05	0.00	1.05	3.38	17.33
1888	4.39	0.76	2.05	0.00	0.53	[0.00]	0.05	0.00	0.00	0.00	2.73	3.94	[14.45]
1889	0.07	0.03	7.48	0.64	2.25	0.25	0.00	0.00	0.00	4.97	3.68	7.52	26.89
1890	6.47	3.01	4.54	2.15	1.78	0.00	......	......	......	......	......	......	....
Means	3.95	2.77	2.84	1.88	0.77	0.22	0.04	0.01	0.10	1.00	2.07	3.68	19.33

ROSS, FORT, CAL.

1874	......	......	......	......	......	......	0.00	0.00	0.00	3.00	31.54	0.40	....
1875	9.15	0.69	3.41	0.00	0.45	1.90	0.00	0.13	0.00	2.57	12.15	6.33	36.78
1876	9.75	9.31	14.44	2.21	1.16	0.23	0.06	0.08	0.71	9.32	0.90	0.15	48.32
1877	9.00	5.49	3.95	0.18	0.80	0.78	0.20	0.00	0.00	2.18	5.33	5.22	33.13
1878	33.29	29.65	13.85	3.14	0.00	0.00	0.00	0.00	2.09	2.79	2.05	1.31	88.17
1879	7.78	11.33	18.43	5.02	2.04	0.00	0.00	0.10	0.00	1.73	15.82	15.47	77.72
1880	6.85	3.53	4.05	16.59	3.13	0.00	0.00	0.00	0.00	0.24	0.00	23.38	57.77

Monthly and annual precipitation at stations in California—Continued.

ROSS, FORT, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	19.99	13.88	2.97	2.51	0.94	1.83	0.00	0.00	0.75	3.10	0.93	13.06	59.96
1882	6.56	11.78	3.01	4.04	0.84	0.13	0.00	0.00	0.57	8.64	5.39	3.49	44.45
1883	6.57	1.40	9.67	3.25	6.50	0.00	0.00	0.00	2.00	2.32	0.49	1.38	33.58
1884	7.16	7.44	10.76	11.79	0.80	4.40	0.00	0.00	0.80	1.85	1.85	19.17	66.02
1885	5.31	3.58	1.45	2.19	0.00	0.33	0.00	0.00	0.55	1.14	18.92	5.98	39.45
1886	14.62	0.25	3.56	8.94	2.04	0.00	0.00	0.00	0.00	1.86	0.26	8.12	39.65
1887	2.61	8.35	1.72	3.48	0.17	0.12	0.00	0.00	0.60	0.00	2.45	4.11	23.61
1888	10.79	2.55	4.61	0.00	0.90	2.49	0.22	0.00	0.58	0.00	4.95	7.71	34.80
1889	0.97	1.77	8.35	1.54	3.17	0.20	0.00	0.00	0.12	10.92	4.02	13.07	44.13
1890	12.44	......	......	......	......	......	......	......	......	......	......	......	......
Means	10.18	7.40	6.95	4.33	1.53	0.83	0.03	0.02	0.55	3.23	6.69	8.02	49.76

ROSS VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	......	......	......	......	......	......	0.00	0.00	0.28	1.41	0.38	1.11	......
1884	7.56	7.43	11.12	8.97	0.32	2.72	0.00	0.09	0.28	3.03	0.17	20.96	62.65
1885	3.37	0.99	1.03	3.24	0.01	0.08	0.00	[0.04]	0.03	0.70	15.24	6.69	[31.42]
1886	11.08	0.28	3.12	8.30	......	......	......	......	......	......	......	......	......
Means	7.34	2.90	5.09	6.84	0.16	1.40	0.00	0.04	0.20	1.71	5.26	9.59	40.53

RUMSEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	0.00	0.80	0.00	6.55	5.15	......
1889	0.95	1.35	8.20	1.40	2.45	0.15	0.00	0.00	0.00	7.90	4.13	12.07	38.60
1890	12.01	4.52	5.32	1.17	1.29	0.00	......	......	......	......	......	......	......
Means	6.48	2.94	6.76	1.28	1.87	0.08	0.00	0.00	0.40	3.95	5.34	8.61	37.71

SACRAMENTO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1849	......	......	......	......	......	......	......	......	0.25	1.50	2.25	12.50	......
1850	4.50	0.50	10.00	4.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.50
1851	0.65	0.35	1.88	1.14	0.69	0.00	0.00	0.00	1.00	0.18	2.14	7.07	15.10
1852	0.58	0.12	6.40	0.19	0.30	0.00	0.00	0.00	0.00	0.00	6.00	13.41	27.00
1853	3.00	2.00	7.00	3.50	1.45	0.00	0.00	0.00	0.00	0.01	1.50	1.54	20.00
1854	3.25	8.50	3.25	1.50	0.21	0.31	0.00	0.00	0.00	1.01	0.65	1.15	19.83
1855	2.67	3.46	4.20	4.32	1.15	0.01	0.00	0.00	0.00	0.00	0.75	2.00	18.56
1856	4.92	0.69	1.40	2.13	1.81	0.03	0.00	0.00	0.00	0.20	0.65	2.40	14.26
1857	1.38	4.80	0.67	0.00	0.00	0.35	0.01	0.00	0.00	0.66	2.41	6.63	16.91
1858	2.44	2.46	2.88	1.21	0.20	0.10	0.00	0.00	0.00	3.01	0.15	4.34	16.79
1859	0.96	3.91	1.64	0.98	1.04	0.00	0.03	0.00	0.02	0.00	6.48	1.83	16.89
1860	2.31	0.93	5.11	2.87	2.49	0.02	0.55	0.00	0.06	0.91	0.18	4.28	19.71
1861	2.67	2.92	3.32	0.48	0.59	0.13	0.00	0.00	0.00	0.00	2.17	8.64	20.92
1862	15.04	4.26	2.80	0.82	1.81	0.01	0.00	0.01	0.00	0.36	0.00	2.33	27.44
1863	1.73	2.75	2.36	1.69	0.35	0.00	0.00	0.00	0.00	0.00	1.49	1.82	12.19
1864	1.08	0.19	1.30	1.08	0.74	0.09	0.00	0.08	0.00	0.12	6.72	7.87	19.27
1865	4.78	0.71	0.48	1.37	0.46	0.00	0.00	0.00	0.08	0.48	2.43	0.36	11.15
1866	7.70	2.01	2.02	0.48	2.25	0.10	0.02	0.00	0.00	0.00	2.43	9.51	26.52
1867	3.44	7.10	1.01	1.80	0.01	0.00	0.00	0.00	0.01	0.00	3.81	12.85	30.03
1868	6.04	3.15	4.35	2.31	0.27	T	0.00	0.00	0.00	0.00	0.77	2.61	19.50
1869	4.79	3.63	2.94	1.24	0.65	0.01	0.00	0.00	T	2.12	0.85	1.96	18.19
1870	1.37	3.24	1.64	2.12	0.27	T	T	0.00	0.00	0.02	0.58	0.97	10.21
1871	2.08	1.92	0.69	1.45	0.76	T	0.00	0.00	T	0.21	1.22	10.59	18.92
1872	4.04	4.74	1.94	0.61	0.28	0.02	0.00	0.00	T	0.22	1.93	5.39	19.17
1873	1.23	4.36	0.55	0.51	0.00	T	0.02	T	0.00	0.31	1.21	10.01	8.20
1874	5.20	1.86	3.05	0.89	0.37	T	T	0.00	0.05	2.26	3.80	0.44	17.92
1875	8.70	0.55	0.80	T	T	1.10	0.00	0.00	0.00	0.41	6.20	5.52	23.31
1876	4.99	3.75	4.15	1.10	0.15	0.00	0.21	0.02	T	3.45	0.30	0.00	18.12
1877	2.77	1.04	0.56	0.19	0.64	0.01	T	T	0.00	0.73	1.07	1.43	8.44
1878	9.26	8.04	3.09	1.07	0.17	0.00	0.00	0.00	0.29	0.55	0.51	0.47	23.45
1879	3.18	3.88	4.88	2.66	1.30	0.13	T	T	0.00	0.88	2.05	3.41	22.37

***Monthly and annual precipitation at stations in California*—Continued.**

SACRAMENTO, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	1.64	1.83	1.70	14.20	0.76	0.00	T	0.00	0.00	0.00	0.05	11.81	31.99
1881	6.14	5.06	1.37	1.64	T	0.50	T	0.00	0.30	0.55	1.88	3.27	20.71
1882	1.89	2.40	3.78	1.99	0.35	0.10	T	0.00	0.57	2.63	3.22	1.13	18.06
1883	2.23	1.11	3.70	0.67	2.85	0.00	0.00	0.00	0.90	0.97	0.61	0.44	13.48
1884	3.43	4.46	8.14	4.32	0.06	1.45	0.00	T	0.60	2.01	0.00	10.45	34.92
1885	2.16	0.49	0.08	0.68	T	0.11	T	0.00	0.08	0.02	11.34	5.76	20.72
1886	7.95	0.29	2.68	4.08	0.07	0.00	0.00	0.00	0.00	0.68	0.21	2.21	18.17
1887	1.12	6.28	0.94	2.53	T	0.00	0.00	T	0.02	0.00	0.45	2.09	13.43
1888	4.81	0.57	3.04	0.10	0.40	0.08	T	T	0.55	0.00	4.28	4.63	18.46
1889	0.15	0.33	6.25	0.26	3.25	0.25	0.00	0.00	0.00	6.02	3.15	7.82	27.48
1890	6.62	4.06	3.00	1.33	1.80	0.00	......	......	......	......	......	......	....
Means	3.78	2.80	2.73	1.85	0.74	0.12	0.02	0.00	0.12	0.79	2.14	4.71	19.80

SALINAS CITY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	......	......	......	......	0.45	0.00	0.00	0.01	0.20	0.20	6.80	....
1873	3.40	2.12	0.80	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.20	4.25	10.97
1874	3.42	1.03	2.15	0.95	0.00	0.00	0.00	0.00	0.00	1.83	1.42	0.00	10.80
1875	4.50	0.15	0.40	[1.42]	0.00	0.26	0.00	0.00	[0.14]	0.00	5.17	1.98	[14.02]
1876	6.16	3.55	4.52	[1.42]	T	0.00	[0.00]	0.00	0.05	1.04	0.05	T	[16.79]
1877	2.54	0.16	0.30	0.10	0.20	0.00	T	T	0.00	0.12	1.00	2.39	6.81
1878	7.05	8.77	2.57	1.92	T	0.00	0.00	T	0.05	0.60	0.20	0.35	21.51
1879	2.42	2.81	1.85	1.69	0.82	0.15	0.00	0.00	T	1.05	1.08	2.28	14.15
1880	1.65	1.16	1.64	3.90	0.46	0.00	0.00	0.00	0.06	T	0.57	5.56	14.94
1881	3.32	2.32	1.26	0.66	0.00	0.38	0.00	0.00	0.10	0.28	0.67	1.24	10.23
1882	1.78	2.31	4.86	1.01	0.49	0.19	0.00	0.00	0.38	1.43	0.65	0.90	14.00
1883	0.91	0.95	2.26	1.28	1.98	0.00	0.00	0.00	0.19	1.19	0.25	1.95	10.96
1884	1.70	4.49	5.09	3.05	0.72	2.66	0.00	0.18	0.11	1.79	0.28	4.46	24.53
1885	1.09	0.05	0.19	1.21	0.12	0.00	0.05	0.00	0.02	0.08	6.60	1.30	10.71
1886	5.10	1.47	2.16	3.83	0.20	0.00	T	0.00	[0.14]	0.62	0.82	0.72	[15.06]
1887	0.75	4.73	0.54	1.63	0.07	0.00	0.00	0.00	0.71	0.00	0.98	2.16	11.57
1888	4.15	0.53	3.28	0.00	0.89	0.00	0.00	0.00	0.56	0.00	1.64	2.20	13.25
1889	0.65	1.65	3.33	0.95	0.68	0.00	0.00	0.00	0.00	4.20	2.41	8.72	22.59
1890	6.19	3.03	1.79	0.60	0.65	0.00	......	......	......	......	......	......	....
Means	3.15	2.29	2.17	1.42	0.40	0.22	0.00	0.01	0.14	0.81	1.34	2.63	14.58

SALTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	5.12	1.21	0.00	0.00	0.00	0.00	0.30	0.00	0.15	0.13	3.79	....
1890	0.00	......	......	......	......	......	......	......	......	......	......	......	....
Means	......	......	......	......	......	......	......	......	......	......	......	......	....

SAN ANDREAS RESERVOIR, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	......	......	......	......	......	......	......	......	0.00	0.20	1.19	5.57	....
1869	12.29	9.61	3.99	4.75	1.03	0.00	0.00	0.00	0.00	4.14	1.75	9.84	47.40
1870	7.44	5.94	2.73	2.26	0.38	0.00	0.00	0.00	0.14	0.34	1.83	5.05	26.11
1871	6.47	8.19	2.67	3.37	1.72	0.00	0.00	0.00	0.00	0.06	4.45	51.05	77.98
1872	6.80	13.96	3.58	3.19	0.07	0.21	0.00	0.00	0.09	0.23	2.95	17.63	48.71
1873	2.89	8.81	2.07	1.20	0.30	0.00	0.00	0.00	0.00	1.16	0.96	15.29	32.68
1874	12.01	3.61	8.86	3.03	1.50	0.56	0.00	0.00	0.00	4.19	15.19	0.66	49.61
1875	16.56	0.76	4.45	0.07	0.86	1.42	0.00	0.00	0.00	0.43	17.30	10.36	52.21
1876	10.71	14.08	13.82	2.17	1.45	0.00	0.00	0.00	0.40	7.73	0.33	0.00	50.69
1877	5.46	1.83	4.02	0.47	1.71	0.00	0.00	0.00	0.00	1.17	3.98	4.57	23.21
1878	23.11	27.87	10.22	2.45	0.23	0.00	0.00	0.00	1.39	2.26	1.45	0.84	69.82
1879	9.42	12.87	19.82	3.72	3.15	0.09	0.00	0.00	0.00	1.80	6.06	11.74	68.67
1880	5.47	4.05	3.33	17.81	3.16	0.00	0.00	0.00	0.00	0.01	0.55	23.73	58.11
1881	13.42	4.24	1.46	1.69	0.16	0.58	0.08	0.00	0.40	1.45	1.54	6.09	31.11
1882	2.72	4.02	6.06	3.15	0.23	0.00	0.00	0.00	0.89	2.80	5.36	1.37	26.60
1883	3.51	0.85	6.34	2.70	4.74	0.00	0.00	0.00	1.15	2.17	0.83	1.64	23.93
1884	6.74	9.69	14.24	8.54	0.34	3.03	0.00	0.00	......	......	......	......	....
Means	9.06	8.15	6.73	3.79	1.31	0.37	T	0.00	0.28	1.88	4.11	10.34	46.02

Monthly and annual precipitation at stations in California—Continued.

SAN ARDO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	0.00	0.00	0.35	0.17	......
1887	0.58	5.58	0.17	0.76	0.05	0.26	0.00	0.00	0.14	0.37	0.32	2.07	10.30
1888	3.44	0.28	2.91	0.11	0.27	0.00	0.00	0.00	[0.05]	0.00	3.24	2.31	12.61
1889	0.83	0.80	6.16	0.49	0.27	0.00	0.00	0.00	0.00	4.74	2.96	7.16	23.41
1890	3.36	3.59	0.99	0.00	0.43	0.00	......	......	......	......	......	......	......
Means	2.05	2.56	2.56	0.34	0.26	0.06	0.00	0.00	0.05	1.28	1.72	2.93	13.81

SAN BENITO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1861	......	......	......	......	......	......	......	......	......	......	4.23	4.79	......
1862	9.14	2.35	0.48	0.25	0.85	0.17	......	......	......	0.05	0.07	......	......
1863	0.68	1.41	0.24	0.49	0.10	......	......	......	......	......	......	......	......
Means	4.91	1.88	0.36	0.37	0.48	0.17	......	......	......	0.05	2.15	4.79	......

SAN BERNARDINO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	0.00	0.00	0.02	0.09	3.11	0.89	......
1871	6.91	2.21	0.19	0.34	0.11	0.07	0.00	0.04	0.13	0.60	0.88	3.91	15.39
1872	0.00	2.20	0.37	0.79	0.06	0.00	0.00	0.18	0.04	0.00	1.17	4.40	9.21
1873	6.50	1.25	0.51	0.84	0.21	0.00	0.00	1.06	0.02	0.01	0.74	5.73	16.87
1874	5.51	8.76	1.08	0.48	0.42	0.00	0.00	0.00	0.06	1.82	1.88	2.20	22.21
1875	7.20	0.15	0.22	0.07	0.05	0.00	0.00	0.00	0.00	0.00	7.50	0.02	15.21
1876	6.55	1.92	3.41	0.44	0.03	0.03	0.00	0.00	0.00	0.20	0.40	0.00	12.98
1877	3.50	4.03	0.83	0.26	0.30	0.00	0.00	0.00	0.00	0.86	0.50	3.95	14.23
1878	3.33	6.68	2.57	1.71	0.66	0.07	0.07	0.00	0.02	0.14	0.05	4.70	20.00
1879	3.59	1.00	0.50	1.20	0.24	0.03	0.11	0.02	0.01	0.94	3.40	6.50	17.54
1880	1.56	1.33	1.45	5.00	0.04	0.00	0.00	0.00	0.00	0.14	0.67	8.80	18.99
1881	1.40	0.36	1.66	0.46	0.01	0.00	0.00	0.00	0.00	0.80	0.27	0.50	5.46
1882	1.11	2.65	3.30	2.91	0.00	0.00	0.00	0.00	0.00	0.10	0.15	0.45	10.67
1883	1.60	1.10	2.82	2.95	0.00	0.00	0.19	0.00	0.53	0.85	0.09	2.63	12.76
1884	1.63	12.20	9.95	5.68	3.17	0.59	0.00	0.00	0.00	0.00	0.11	3.75	37.08
1885	2.79	0.11	0.28	1.89	1.69	0.19	0.00	0.00	0.00	0.39	4.36	1.20	12.90
1886	6.44	2.51	4.18	2.36	0.32	0.16	0.00	0.00	0.00	0.00	0.11	0.61	16.70
1887	0.39	6.44	4.41	1.90	0.42	0.22	0.11	0.04	0.09	1.17	2.29	1.91	19.39
1888	4.01	3.60	3.41	0.58	0.52	0.03	0.00	0.00	0.00	0.05	4.12	4.64	20.96
1889	0.93	1.50	6.55	2.05	1.13	0.00	0.17	0.63	0.11	2.30	2.23	10.85	28.45
1890	5.44	2.15	......	......	......	......	......	......	......	......	......	......	......
Means	3.52	3.11	2.51	1.68	0.49	0.07	0.03	0.10	0.05	0.52	1.70	3.38	17.16

SAN BUENAVENTURA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	0.25	0.12	......	0.03	......	0.34	......	4.07	......
1879	4.60	0.43	0.07	2.14	0.25	......	......	......	......	0.57	......	......	......
1880	1.41	7.06	1.87	1.87	0.00	0.00	0.00	0.00	0.00	......	0.80	9.28	......
1881	2.47	......	1.53	0.45	......	0.00	0.00	0.00	0.16	......	......	0.81	......
1882	......	2.79	4.14	......	......	......	0.50	0.00	0.23	......	0.71	3.43	......
1883	3.43	......	......	......	......	......	......	......	......	......	......	......	......
1885	......	......	......	......	......	......	......	......	......	0.03	8.33	1.03	......
1886	6.36	1.04	2.27	1.97	0.09	0.00	......	......	......	......	......	......	......
Means	3.65	2.83	1.98	1.61	0.15	0.03	0.17	0.01	0.13	0.31	3.28	3.72	17.87

SAN DIEGO, CAL.

1850	0.00	1.13	1.00	0.09	0.00	0.68	0.00	0.00	0.00	0.19	2.82	1.93	7.84
1851	0.03	1.51	0.34	0.87	0.71	0.01	0.00	0.00	0.02	0.01	0.25	3.74	7.49
1852	0.58	1.84	1.87	0.85	0.32	0.00	0.00	0.40	0.00	0.06	1.45	4.50	11.87
1853	0.50	0.20	1.52	0.25	2.10	0.05	0.00	0.21	0.00	0.00	1.28	1.77	7.88

Monthly and annual precipitation at stations in California—Continued.

SAN DIEGO, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1854	0.99	2.56	1.88	0.89	0.18	0.01	0.07	1.36	0.09	0.27	0.04	3.29	11.63
1855	1.97	3.59	1.30	1.52	0.06	0.00	0.00	0.04	0.00	0.11	2.15	0.41	11.15
1856	1.27	1.86	1.59	2.17	0.29	0.00	0.00	0.00	0.07	0.00	1.22	1.30	9.77
1857	0.26	1.76	0.00	0.04	0.08	0.03	0.00	0.02	0.01	0.49	2.16	1.30	6.15
1858	1.52	0.44	1.24	0.17	0.00	0.19	0.00	0.04	0.10	0.47	0.28	3.10	7.55
1859	0.00	1.89	0.20	0.36	0.17	0.00	0.02	0.00	0.00	0.18	1.49	1.79	6.10
1860	0.72	1.49	0.15	0.65	0.04	0.05	0.14	0.00	0.00	0.00	2.88	2.99	9.11
1861	0.82	0.79	0.05	0.04	0.00	0.19	0.00	0.00	1.59	0.05	1.19	3.20	7.92
1862	5.56	1.39	0.97	1.05	0.16	0.48	0.11	0.00	0.00	0.89	0.05	0.93	11.59
1863	0.32	1.09	0.33	0.13	0.02	0.00	0.00	0.00	0.36	0.00	0.73	0.04	3.02
1864	0.04	2.50	0.20	0.01	1.25	0.01	0.11	0.00	0.00	0.04	2.41	1.04	7.61
1865	1.28	3.00	0.00	0.56	0.00	0.01	1.29	0.00	0.00	0.02	0.52	0.84	7.52
1866	5.05	3.43	1.47	0.11	0.09	0.00	0.00	0.10	0.00	0.00	0.24	1.82	12.31
1867	2.32	0.85	7.88	0.48	0.04	0.00	0.00	0.30	0.00	[0.34]	0.45	3.06	15.72
1868	3.37	1.63	0.73	1.20	0.15	0.00	0.51	0.00	0.05	0.00	2.00	1.52	11.16
1869	2.88	1.88	1.98	0.53	0.33	0.00	0.05	0.00	0.00	0.05	2.32	0.94	10.96
1870	0.54	0.77	0.33	0.20	0.28	0.00	0.04	0.07	0.00	1.54	0.18	0.42	4.37
1871	0.52	1.35	0.01	0.70	0.34	0.00	0.00	0.00	0.00	0.00	1.33	1.39	5.64
1872	0.99	2.63	0.46	0.26	0.12	0.00	0.00	0.18	0.00	0.00	0.00	1.40	6.04
1873	0.44	4.15	0.11	0.10	0.03	0.00	0.00	1.95	0.00	0.00	0.77	5.46	13.01
1874	3.11	3.73	1.20	0.34	0.34	0.00	0.12	0.00	0.11	0.53	0.88	0.55	10.91
1875	2.38	0.37	0.45	0.12	0.20	0.02	0.00	0.21	0.39	0.00	2.25	0.41	6.80
1876	2.47	2.44	1.78	0.06	0.05	0.05	0.03	0.06	0.03	0.08	0.04	0.15	7.24
1877	1.05	0.18	1.44	0.26	0.43	0.00	0.00	0.00	0.00	0.81	0.06	3.89	8.12
1878	1.45	4.83	1.41	2.91	0.58	0.16	0.00	0.00	0.00	0.96	0.00	1.57	13.87
1879	3.54	1.04	0.10	0.60	T	0.07	0.00	0.00	0.00	0.29	2.77	6.30	14.71
1880	0.61	1.50	1.43	1.34	0.06	0.06	0.09	0.32	0.00	0.53	0.28	4.15	10.37
1881	0.52	0.45	1.88	1.35	0.04	0.05	0.00	0.01	0.04	0.24	0.12	0.30	5.00
1882	4.53	2.55	1.02	0.45	0.18	0.07	0.00	T	0.01	0.41	0.39	0.13	9.74
1883	1.09	0.95	0.41	0.31	1.14	0.08	0.00	0.00	0.00	2.01	0.20	1.82	8.01
1884	1.34	9.05	6.23	2.84	2.17	0.31	0.00	T	0.07	0.35	0.11	5.12	27.59
1885	0.35	0.02	0.78	1.20	0.61	0.06	T	0.13	T	0.31	1.56	0.71	5.73
1886	6.95	1.51	3.73	1.95	0.04	0.07	T	T	0.00	0.05	0.95	0.10	15.35
1887	0.04	4.51	0.02	2.14	0.47	0.04	0.01	T	T	T	2.08	1.14	10.45
1888	1.96	1.48	2.79	0.10	0.22	0.04	0.01	T	0.04	0.26	1.83	2.84	11.57
1889	1.72	1.80	2.20	0.19	0.03	0.10	T	0.04	T	2.12	0.12	7.71	16.03
1890	2.79	1.70	0.41	0.05	0.08	0.00	......	......	......	......	......	......	......
Means	1.66	2.00	1.29	0.72	0.33	0.07	0.06	0.14	0.07	0.34	1.05	2.13	9.86

SAN FERNANDO, CAL.

1877	......	......	......	......	......	......	......	......	......	0.04	0.48	2.36	......
1878	4.15	6.89	2.08	2.55	0.36	0.00	0.00	0.00	0.00	0.16	0.09	1.20	17.48
1879	3.97	0.86	0.18	1.41	0.00	0.00	0.00	0.00	0.00	0.33	2.15	6.29	15.19
1880	0.94	2.00	1.14	2.97	0.00	0.00	0.00	0.00	0.00	0.00	0.86	4.72	12.63
1881	1.28	0.34	1.75	0.50	0.00	0.00	0.00	0.00	0.00	0.95	0.16	6.32	5.30
1882	0.62	1.70	3.21	1.56	0.10	0.00	0.00	0.00	0.00	0.28	0.68	0.00	8.15
1883	1.32	3.17	1.30	0.13	2.12	0.00	0.00	0.00	0.00	0.70	0.00	2.76	11.50
1884	3.00	10.60	10.51	3.48	1.05	2.00	0.00	0.00	0.00	0.42	1.00	4.96	37.02
1885	0.90	0.00	T	1.48	0.21	0.00	0.00	0.00	0.00	0.00	7.94	1.17	11.70
1886	6.70	T	3.36	3.39	0.00	0.00	0.19	T	0.00	0.78	0.87	0.24	15.53
1887	0.21	8.54	0.27	2.52	T	0.00	0.00	0.00	[0.03]	0.22	0.90	1.41	[14.10]
1888	[2.11]	[3.16]	3.40	0.44	0.00	0.00	0.00	0.00	0.00	0.36	3.24	5.40	[18.11]
1889	0.09	0.63	8.95	0.56	0.43	0.00	0.00	0.06	0.32	6.17	1.60	14.40	33.21
Means	2.11	3.16	3.01	1.75	0.36	0.17	0.02	0.00	0.03	0.80	1.54	3.48	16.42

SAN FRANCISCO, CAL.

1849	......	......	......	......	......	......	0.00	0.00	0.00	3.14	8.66	6.20	......
1850	8.34	1.77	4.53	0.46	0.00	0.00	0.00	0.00	0.33	0.00	0.92	1.05	17.40
1851	0.72	0.54	1.94	1.23	0.67	0.00	0.00	0.00	0.33	0.21	2.12	7.10	14.86
1852	0.58	0.14	6.68	0.26	0.32	0.00	0.00	0.00	1.03	0.80	5.31	13.20	28.32
1853	3.92	1.42	4.86	5.37	0.35	0.00	0.00	0.04	0.00	0.12	2.28	2.32	20.68
1854	3.88	8.04	3.51	3.12	0.02	0.08	0.00	0.01	0.46	2.41	0.34	0.81	22.68
1855	3.67	4.77	4.64	5.00	1.88	0.00	0.00	0.00	0.15	0.00	0.67	5.76	26.54

Monthly and annual precipitation at stations in California—Continued.

SAN FRANCISCO, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1856	9.40	0.50	1.60	2.94	0.76	0.03	0.02	0.00	0.00	0.45	2.79	3.75	22.24
1857	2.45	8.59	1.62	0.00	0.02	0.12	0.00	0.05	0.07	0.93	3.01	4.14	21.00
1858	4.36	1.83	5.55	1.55	0.34	0.05	0.05	0.16	0.00	2.74	0.69	6.14	23.46
1859	1.28	6.32	3.02	0.27	1.55	0.00	0.00	0.02	0.00	0.05	7.28	1.57	21.36
1860	1.64	1.60	3.99	3.14	2.86	0.09	0.21	0.00	0.03	0.19	0.58	6.16	20.49
1861	2.47	3.72	4.08	0.51	1.00	0.08	0.00	0.00	0.00	0.00	4.10	9.54	25.50
1862	24.36	7.53	2.20	0.73	0.74	0.05	0.00	0.00	0.02	0.40	0.15	2.35	38.53
1863	3.63	3.19	2.06	1.04	0.26	0.00	0.00	0.00	0.00	0.00	2.55	1.80	14.53
1864	1.83	0.00	1.52	1.57	0.78	0.00	0.00	0.21	0.03	0.13	6.68	8.91	21.66
1865	5.14	1.34	0.74	0.94	0.63	0.00	0.00	0.00	0.01	0.26	4.19	0.58	13.83
1866	10.88	2.12	3.04	0.12	1.46	0.04	0.00	0.00	0.24	0.00	3.35	15.46	36.41
1867	5.16	7.20	1.58	2.36	0.00	0.00	0.00	0.00	0.11	0.20	3.41	10.69	30.71
1868	9.50	6.13	6.30	2.31	0.03	0.23	0.00	0.00	0.04	0.15	1.18	4.34	30.21
1869	6.35	3.90	3.14	2.19	0.08	0.02	0.00	0.00	0.12	1.29	1.19	4.31	22.59
1870	2.87	2.96	1.31	1.09	0.22	0.00	0.00	0.00	0.04	0.00	0.50	3.22	12.21
1871	2.19	3.30	1.05	1.89	0.23	0.01	0.00	0.02	0.00	0.07	2.81	14.36	25.93
1872	4.03	6.90	1.59	0.81	0.18	0.04	0.01	0.00	0.04	0.11	2.79	5.95	22.45
1873	1.58	3.94	0.78	0.43	0.00	0.02	0.01	0.08	0.00	0.83	1.16	9.72	18.55
1874	5.66	2.21	3.36	0.90	0.66	0.14	0.00	0.00	0.02	2.69	6.55	0.33	22.52
1875	8.01	0.32	1.30	0.10	0.22	1.02	0.00	0.00	0.00	0.24	7.27	4.15	22.63
1876	7.55	4.92	5.49	1.29	0.24	0.04	0.01	0.01	0.38	3.36	0.25	0.00	23.54
1877	4.32	1.18	1.08	0.26	0.18	0.01	0.02	0.00	0.00	0.65	1.57	2.66	11.93
1878	11.97	12.52	4.56	1.06	0.16	0.01	0.01	T	0.55	1.27	0.57	0.58	33.26
1879	3.52	4.90	8.75	1.89	2.35	0.05	0.01	0.02	T	0.78	4.03	4.46	30.76
1880	2.23	1.87	2.08	10.06	1.12	0.00	0.00	0.00	0.00	0.05	0.33	12.33	30.07
1881	8.69	4.65	0.90	2.00	0.22	0.69	0.00	0.00	0.25	0.54	1.94	3.85	23.73
1882	1.68	2.96	3.45	1.22	0.21	0.04	0.00	0.00	0.26	2.66	4.18	2.01	18.67
1883	1.92	1.04	3.01	1.51	3.52	0.01	0.00	0.00	0.42	1.48	1.60	0.92	15.43
1884	3.94	6.65	8.24	6.33	0.23	2.57	T	0.04	0.33	2.55	0.26	7.68	38.82
1885	2.53	0.30	1.01	3.17	0.04	0.19	0.06	T	0.11	0.72	11.78	4.99	24.90
1886	7.42	0.24	2.07	5.28	0.37	0.01	0.23	T	0.01	1.48	0.84	2.07	20.02
1887	1.90	9.24	0.84	2.30	0.06	0.07	T	0.01	0.29	T	0.99	3.34	19.01
1888	6.81	0.94	3.60	0.11	0.38	0.27	0.01	0.01	0.98	0.13	3.99	5.80	23.03
1889	1.28	0.72	7.78	0.96	2.17	0.03	0.01	T	T	7.28	2.90	13.81	36.91
1890	9.61	5.16	4.73	1.18	1.07	0.10	......	......	......	......	......	......	....
Means	5.10	3.60	3.26	1.93	0.67	0.15	0.02	0.02	0.16	0.98	2.87	5.32	24.08

SAN FRANCISCO (ALCATRAZ ISLAND), CAL.

1860	......	......	......	......	......	......	......	......	......	......	......	3.41	....
1861	1.05	1.45	2.34	0.23	0.68	0.04	T	T	0.00	T	1.64	3.65	11.08
1862	14.51	5.27	0.95	0.55	0.51	0.05	0.00	0.00	0.00	0.38	0.08	1.77	24.07
1863	2.43	1.36	1.78	0.92	T	T	T	T	T	0.00	1.03	0.97	8.49
1864	0.87	T	1.57	0.79	......	......	......	......	......	......	......	......	....
1865	......	......	......	......	......	......	......	......	......	......	1.60	0.04	....
1866	7.28	0.67	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.99	10.80	21.24
1867	2.62	4.10	0.32	0.33	0.00	0.00	0.00	0.00	0.00	T	1.34	6.63	15.34
1868	6.32	5.18	3.93	1.31	T	0.03	T	0.00	0.00	0.00	0.50	3.52	20.79
1869	4.15	3.27	2.59	1.83	0.02	0.04	T	0.00	T	0.31	1.36	1.44	15.01
1870	1.72	3.19	1.25	0.98	0.08	T	T	T	0.03	0.00	0.61	2.94	10.80
1871	2.39	2.34	0.52	1.49	0.12	0.00	0.00	0.00	0.00	T	2.02	10.82	19.70
1872	3.05	7.07	1.46	0.65	0.14	0.00	0.00	T	0.04	0.10	2.84	7.33	22.68
1873	2.34	4.58	0.84	0.30	0.00	T	T	T	0.00	0.74	0.93	9.15	18.88
1874	5.11	1.68	2.43	1.50	0.50	T	0.00	0.00	0.12	0.99	3.91	0.20	16.44
1875	3.98	0.20	0.49	T	0.04	0.52	0.00	0.00	0.00	0.04	3.76	1.99	11.02
1876	3.40	2.06	1.99	0.53	0.35	0.10	T	0.00	0.25	1.68	0.16	0.00	10.52
1877	3.80	0.68	0.79	0.15	0.18	T	0.00	0.00	0.00	0.40	0.96	1.81	8.77
1878	7.80	8.64	2.20	0.65	0.10	0.00	0.00	T	0.15	0.75	0.57	0.52	21.38
1879	3.11	3.77	4.37	1.31	1.72	0.00	0.00	0.00	0.00	0.05	1.18	2.92	18.43
1880	1.59	1.82	1.79	8.37	0.95	0.00	0.00	0.00	0.00	0.05	0.32	11.80	26.69
1881	8.76	5.08	0.91	2.00	0.05	0.68	0.00	0.00	0.25	0.54	2.04	3.39	23.70
1882	1.51	3.14	4.07	1.32	0.02	0.10	0.00	0.00	0.19	2.63	4.20	2.19	19.37
1883	2.17	1.06	3.16	1.52	3.44	0.00	0.00	0.00	0.24	1.73	1.10	0.70	15.12
1884	3.10	3.96	6.02	7.34	0.20	2.11	0.01	0.25	0.30	0.97	0.05	4.50	28.81
1885	0.52	0.12	0.38	2.52	0.02	0.14	0.02	0.00	0.12	0.50	10.04	3.47	17.85
1886	7.00	0.15	1.52	4.20	0.25	0.00	0.15	0.00	0.02	1.30	1.02	1.85	17.46

***Monthly and annual precipitation at stations in California*—Continued.**

SAN FRANCISCO (ALCATRAZ ISLAND), CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	1.40	7.85	0.85	2.75	T	0.05	T	0.00	0.16	0.00	0.80	3.80	17.66
1888	6.76	0.98	4.16	0.25	0.50	0.17	0.00	0.00	0.75	0.07	3.55	6.10	23.29
1889	0.54	0.50	9.08	0.53	2.30	T	0.00	0.00	0.00	7.81	3.45	13.04	37.25
1890	10.66	4.42	4.93	1.45	0.64	0.00	......	......	......	......	......	......	......
Means	4.14	2.92	2.35	1.58	4.73	0.15	0.01	0.01	0.10	0.78	1.86	4.16	22.79

SAN FRANCISCO (ANGEL ISLAND), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	......	......	......	......	......	......	......	......	......	......	......	9.30	......
1868	9.30	5.34	6.19	2.47	......	0.10	0.00	0.00	0.00	0.31	1.89	6.47	32.69
1869	6.08	2.87	2.95	2.15	0.15	0.00	0.00	0.00	0.04	1.46	1.77	3.22	20.69
1870	3.28	1.77	0.82	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.70	1.70	9.41
1871	1.38	2.96	0.77	1.55	......	......	......	......	......	......	1.60	......	......
1872	......	......	......	......	......	......	0.00	0.01	0.00	0.10	1.81	10.14	......
1873	1.42	4.01	0.60	0.24	0.00	0.00	0.00	0.00	0.00	0.71	0.29	6.59	13.86
1874	2.29	0.74	1.29	0.26	0.33	0.00	0.00	0.00	0.02	1.88	5.92	0.21	12.94
1875	7.45	0.00	1.46	T	0.16	0.62	0.00	0.00	0.00	0.30	7.41	2.79	20.19
1876	6.48	3.51	4.01	0.82	0.22	T	T	T	0.64	3.03	0.18	0.00	18.89
1877	4.45	0.73	1.39	0.22	0.21	0.08	0.00	0.00	0.00	0.55	1.82	2.47	11.92
1878	9.14	9.12	4.00	0.84	0.10	0.00	0.00	T	0.64	1.10	0.47	0.84	26.25
1879	4.05	3.86	6.15	2.20	1.72	0.01	0.00	0.00	0.01	0.56	4.16	3.98	26.70
1880	2.56	2.39	2.87	10.17	1.14	0.00	0.00	0.01	0.00	0.08	0.56	12.06	31.83
1881	9.39	4.95	0.95	2.24	0.15	0.82	T	0.00	0.44	0.56	2.13	3.84	25.47
1882	1.72	3.00	3.55	1.22	0.19	0.00	0.00	0.00	0.25	2.63	4.18	1.77	18.51
1883	1.99	1.04	3.22	1.49	3.52	T	0.00	0.00	0.25	1.57	1.58	0.91	15.57
1884	4.05	6.85	7.82	6.67	0.12	2.66	T	0.06	0.25	2.71	0.35	7.85	39.39
1885	2.46	0.38	0.89	3.31	0.16	0.01	0.02	0.00	0.08	0.63	11.57	4.61	24.15
1886	7.17	0.12	1.75	5.43	0.35	......	0.24	0.00	0.00	1.49	0.73	2.00	......
1887	1.96	8.77	2.70	1.95	T	0.10	T	0.00	0.11	0.00	0.17	1.47	17.23
1888	5.36	0.30	0.23	0.04	0.25	0.13	T	0.00	1.15	T	2.84	4.61	14.91
1889	1.68	0.91	6.64	1.08	2.45	0.06	0.00	0.00	0.00	7.86	3.40	11.28	35.36
1890	6.95	4.07	4.87	1.26	1.20	0.00	......	......	......	......	......	......	......
Means	4.57	3.08	2.96	2.12	0.62	0.23	0.01	T	0.19	1.31	2.52	4.46	22.07

SAN FRANCISCO (FORT MASON), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	......	......	......	......	......	......	......	......	......	......	......	2.90	......
1883	1.24	......	3.50	2.22	3.62	0.00	0.00	0.00	0.64	1.12	......	1.38	......
1884	3.90	2.34	5.94	4.34	T	2.00	0.00	0.00	T	0.94	1.14	5.80	26.40
1885	1.72	0.32	0.40	3.36	0.00	0.00	0.00	0.00	T	0.42	10.70	5.94	22.86
1886	4.68	T	1.74	5.08	0.20	0.00	0.08	0.00	T	1.02	0.72	1.36	14.88
1887	0.86	8.80	0.82	1.94	0.04	0.06	[0.00]	0.00	0.78	0.00	1.04	2.97	17.31
1888	6.11	[2.78]	[3.44]	0.10	0.40	0.06	[0.00]	0.00	0.86	0.04	3.52	5.01	22.35
1889	1.11	0.76	6.93	0.67	1.98	0.02	0.00	0.00	0.00	7.04	2.64	14.08	35.23
1890	8.20	4.47	4.76	1.22	1.02	0.06	......	......	......	......	......	......	......
Means	3.48	2.78	3.44	2.37	0.91	0.28	0.02	0.00	0.33	1.51	3.29	4.93	23.34

SAN FRANCISCO (FORT POINT), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	1.15	1.45	3.20	3.50	2.36	0.00	0.18	0.00	0.00	1.03	0.33	4.27	17.47
1861	1.83	1.66	2.38	0.39	0.80	0.05	0.00	0.00	0.00	0.00	1.94	4.88	13.93
1862	13.67	4.88	1.16	0.59	1.05	0.04	0.00	0.05	0.00	0.76	0.15	1.51	23.86
1863	2.28	3.03	1.39	1.38	0.39	0.00	0.00	0.00	0.23	0.00	1.49	1.03	11.22
1864	1.14	0.00	1.03	0.90	0.65	0.00	0.00	0.00	[0.05]	0.21	3.69	6.37	[14.04]
1865	2.57	1.05	0.50	0.90	0.37	0.00	0.00	0.00	0.17	0.10	1.73	0.49	7.88
1866	9.28	1.16	1.84	0.14	1.60	0.07	0.00	0.00	0.00	0.00	2.45	11.29	27.83
1867	3.38	4.50	1.81	1.95	0.00	0.00	0.00	0.00	0.00	0.70	2.76	5.75	20.85
1868	8.93	5.66	4.12	1.63	0.08	0.12	0.05	0.00	0.00	0.19	1.36	3.96	26.10
1869	4.52	2.93	3.38	1.46	0.18	0.00	0.00	0.00	0.00	2.09	1.21	2.25	18.02

Monthly and annual precipitation at stations in California—Continued.

SAN FRANCISCO (FORT POINT), CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	2.32	3.86	1.43	1.08	0.16	0.00	0.00	0.00	0.07	0.30	0.55	2.82	12.59
1871	1.86	2.86	0.86	1.63	0.35	0.00	0.00	0.00	0.00	0.14	1.32	7.04	16.06
1872	3.75	5.10	1.08	0.76	0.14	0.02	0.00	0.00	0.13	0.14	1.44	4.54	17.10
1873	1.00	4.77	0.71	0.25	0.00	0.00	0.00	0.00	0.00	0.73	1.48	8.82	17.76
1874	3.72	1.10	2.54	0.73	0.41	0.02	0.00	0.00	0.05	2.16	3.28	0.12	14.13
Means	4.09	2.93	1.83	1.15	0.57	0.02	0.02	0.00	0.05	0.57	1.68	4.34	17.25

SAN FRANCISCO (POINT SAN JOSÉ), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	5.30	......	......	......	......	......	......	......	......	......	......	......	......
1870	......	......	......	......	......	......	......	0.00	T	0.00	0.40	2.42	......
1871	2.24	1.90	1.40	0.40	1.02	0.00	0.00	0.00	0.00	T	3.20	10.82	20.98
1872	2.20	5.44	1.41	0.83	0.00	0.13	0.00	T	T	0.25	2.03	5.80	18.09
1873	0.84	5.18	0.56	T	0.00	0.00	0.00	0.00	0.00	0.57	1.24	10.13	18.52
1874	2.60	1.00	1.91	0.70	0.22	0.08	0.00	-0.00	0.04	2.06	3.76	0.10	12.47
1875	5.34	0.08	0.78	0.07	0.09	0.49	0.00	0.00	0.00	0.09	3.57	1.83	12.34
1876	4.32	2.91	1.94	0.80	0.17	0.01	0.04	T	0.11	1.67	0.19	0.00	12.16
1877	4.02	0.85	0.45	......	......	......	......	......	......	......	......	......	......
1878	......	......	......	......	0.12	T	0.00	T	0.10	0.70	0.32	0.31	......
1879	2.22	2.59	4.11	1.29	1.24	0.02	T	T	T	0.37	2.42	2.13	16.39
1880	1.20	1.12	1.27	5.16	0.61	0.00	T	0.00	0.00	0.03	0.24	6.87	16.50
1881	5.80	3.11	0.46	1.40	0.13	0.42	0.00	0.00	0.09	0.36	1.54	2.72	16.03
1882	1.17	1.99	2.47	0.97	0.16	T	0.00	0.00	0.36	1.94	3.80	......	......
Means	3.10	2.88	1.52	1.16	0.34	0.10	T	T	0.06	0.67	1.89	3.92	15.14

SAN FRANCISCO (YERBA BUENA ISLAND), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	......	2.47	......	0.94	0.24	T	0.00	0.00	0.42	1.30	0.20	2.30	......
1870	1.34	3.00	0.80	0.46	0.05	0.00	0.00	0.00	0.00	0.00	0.04	1.57	7.26
1871	1.27	......	......	......	......	......	......	......	0.00	0.00	......	......	......
1872	......	......	......	......	......	......	0.00	0.00	0.00	......	......	......	......
1873	......	......	......	......	0.00	0.00	0.00	0.00	0.00	0.00	......	......	......
1875	......	......	......	......	......	......	0.01	0.00	0.00	0.22	6.83	3.50	......
1876	6.94	4.04	4.19	1.01	0.02	0.00	0.22	0.00	0.00	1.29	0.03	0.00	17.74
1877	3.82	0.39	0.00	0.20	0.12	0.06	0.00	0.00	0.00	0.46	1.27	1.83	8.15
1878	9.47	9.48	3.92	0.77	0.10	0.00	0.00	0.00	0.20	0.00	0.32	0.30	24.56
1879	2.96	3.11	5.85	1.25	1.20	0.06	0.00	0.00	0.00	0.52	2.02	2.31	19.28
1880	1.05	1.33	1.15	5.27	0.12	0.00	0.00	0.00	0.00	0.03	0.07	9.79	18.81
1881	6.09	3.04	0.51	1.28	0.10	0.39	0.00	0.00	0.00	0.45	1.82	2.24	15.92
1882	1.17	1.92	2.56	0.97	0.11	0.00	0.00	0.00	0.18	2.13	3.09	1.74	13.87
1883	1.19	0.59	2.33	1.13	2.54	0.00	0.00	0.00	0.16	1.00	0.77	0.66	10.37
1884	2.36	5.07	5.88	4.86	0.20	2.26	0.00	0.03	1.03	1.98	0.00	5.36	29.03
1885	2.01	0.24	0.92	2.43	0.00	0.00	0.00	0.00	0.00	0.30	7.05	2.34	15.29
1886	5.07	0.00	1.77	3.44	0.15	......	......	......	......	......	......	......	......
Means	3.44	2.67	2.49	1.85	0.35	0.21	0.01	T	0.12	0.64	1.81	2.61	16.20

SAN GABRIEL, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.08	1.12	6.16	0.40	0.75	0.00	0.00	0.89	0.00	6.14	0.40	14.32	30.26
1890	7.43	1.77	0.69	0.00	0.00	0.00	......	......	......	......	......	......	......
Means	3.76	1.44	3.42	0.20	0.38	0.00	0.00	0.89	0.00	6.14	0.40	14.32	30.95

SANGER JUNCTION, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	0.00	0.21	0.00	2.58	2.02	......
1889	0.47	0.54	2.94	0.84	0.80	0.00	0.00	T	0.00	4.39	1.31	4.71	16.00
1890	4.02	1.48	1.22	0.11	0.00	0.00	......	......	......	......	......	......	......
Means	2.24	1.01	2.08	0.48	0.40	0.00	0.00	T	0.10	2.20	1.94	3.36	13.81

Monthly and annual precipitation at stations in California—Continued.

SAN GORGONIA PASS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	......	......	......	0.40	....
1875	1.00	0.60	[3.23]	[3.62]	0.00	T	0.00	0.00	[0.03]	0.00	[1.33]	1.23	[11.04]
1876	9.31	5.54	6.26	0.99	0.20	0.00	0.03	[0.13]	0.19	0.18	0.00	0.00	[22.83]
1877	5.55	2.03	3.93	2.59	3.93	0.00	0.30	T	[0.03]	1.30	0.80	4.28	[24.74]
1878	6.03	10.49	4.40	6 86	1.33	0.26	0.03	0.20	0.00	0.00	0.97	0.92	31.49
1879	2.83	1.78	0.55	3.23	0.01	0.62	0.00	0.22	0.00	1.00	4.10	9.39	23.78
1880	1.78	2.81	3.04	6.94	0.14	0.00	T	0.09	0.00	0.50	[1.33]	10.27	[26.90]
1881	2.48	1.86	3.39	[3.62]	0.35	0.00	0.94	0.00	0.00	[0.53]	[1.33]	0.42	[14.92]
1882	3.30	7.29	4.38	4.21	0.35	1.30	0.00	0.62	......	......	......	......	....
1886	2.97	1.73	3.07	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.58	[3.36]	[12.95]
1887	0.06	5.07	0.08	2.94	0.14	0.00	0.07	0.00	0.00	1.23	1.51	[3.36]	[14.46]
Means	3.54	3.92	3.23	3.62	0.64	0.22	0.14	0.13	0.03	0.53	1.33	3.36	20.69

SAN JOSÉ, CAL.

1873	......	......	......	......	......	......	......	......	......	......	......	2.82	....
1874	2.61	0.77	2.83	0.87	0.21	0.00	0.00	0.00	0.10	1.81	1.91	0.08	11.19
1875	2.75	0.41	0.39	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	1.51	5.51
1876	4.08	3.41	3.11	0.41	0.25	0.00	0.00	0.00	0.08	1.35	0.02	0.00	12.71
1877	2.23	0.48	0.78	0.00	0.05	0.00	0.00	0.00	0.00	0.37	0.85	1.87	6.63
1878	5.53	6.94	2.22	1.48	0.02	0.00	0.00	0.00	0.48	0.89	0 76	0.97	17.07
1879	1.48	3.18	5.85	1.24	1.58	0.06	0.00	0.00	0.00	0.87	1.79	2.99	13.25
1880	1.52	1.34	0.96	3.66	0.67	0.00	0.00	0.00	0.00	0.00	0.49	5.60	14.21
1881	2.12	2.04	0.80	1.28	0.00	0.12	0.00	0.00	0.02	0.45	0.88	1.83	9.54
1882	1.17	1.49	4.26	1.10	0.55	0.00	0.00	0.00	0.04	0.87	1.32	0.82	11.62
1883	3.86	0.94	2.70	0.66	2.18	0.00	0.00	0.00	0.09	0.67	0.28	0.37	8.95
1884	3.18	3.68	6.23	3.38	0.05	2.15	0.00	0.00	0.08	1.50	0.06	3.90	24.21
1885	1.83	0.18	0.86	2.75	0.11	T	0.00	0.00	0.00	0.06	7.39	2.11	15.29
1886	3.59	1.12	1.89	4.47	0.00	0.00	0.03	0.00	0.00	0.49	0.73	0.71	13.03
1887	0.68	6.81	0.63	1.28	0.00	0.00	0.02	0.00	0.61	0.03	0.70	2.53	13.29
1888	3.06	1.09	3.00	0.31	0.60	0.22	0.00	0.00	0.60	0.00	3.88	2.44	15.20
1889	0.50	0.70	5.80	0.79	0.96	0.04	0.00	0.00	0.00	4.48	1.73	10.55	25.55
1890	6.52	3.64	2.08	0.55	0.75	0.00	......	......	......	......	......	......	....
Means	2.75	2.25	2.61	1.43	0.47	0.18	T	0.00	0.13	0.86	1.42	2.42	14.52

SAN LUIS OBISPO, CAL.

1869	......	......	......	......	......	......	......	......	......	0.84	0.66	0.78	....
1870	0.71	4.85	0.74	2.40	0.85	0.00	0.00	0.00	0.00	0.68	0.38	2.90	13.51
1871	1.51	4.43	0.00	2.79	0.28	0.00	0.00	0.00	0.00	0.00	2.40	13.93	25.34
1872	5.16	3.45	0.71	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	16.69
1873	5.00	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.96	14.75
1874	4.29	4.04	3.23	1.00	0.00	0.00	0.00	0.00	0.00	4.28	2.05	0.48	19.37
1875	12.10	0.28	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.20	2.20	21.28
1876	9.87	5.29	5.30	1.26	0.00	0.00	0.00	0.00	0.00	1.16	0.00	0.00	22.88
1877	4.83	0.42	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.42	3.90	12.31
1878	7.88	11.91	2.74	2.75	0.00	0.00	0.00	0.00	0.00	0.00	1.50	2.58	29.36
1879	1.78	2.15	1.60	1.80	0.25	0.00	0.00	0.00	0.00	0.75	1.40	3.03	12.76
1880	1.75	7.23	2.36	8.78	0.52	0.00	0.00	0.00	0.00	0.00	0.48	13.35	34.47
1881	4.71	1.90	1.40	1.85	0.00	0.00	0.00	0.00	0.40	1.65	0.25	2.00	14.16
1882	0.85	3.40	6.75	1.73	0.00	0.00	0.00	0.00	0.00	0.69	2.95	0.44	16.81
1883	1 50	1.60	4.88	1.10	3.85	0.00	0.00	0.00	0.00	0.00	0.00	3.56	16.49
1884	10.57	10.21	12.41	3.39	0.00	2.26	0.00	0.00	0.00	2.17	0.13	8.85	49.99
1885	2.25	0.00	0.94	3.15	0.10	0.00	0.00	0.00	0.00	0.04	12.90	3.67	23.05
1886	5.78	0.79	2.37	3.75	0.00	0.00	0.00	0.00	0.00	0.25	1.25	1.06	15.25
1887	1.10	9.60	1.29	1.56	0.36	0.07	0.02	0.00	2.05	0.25	1.40	3.15	20.85
1888	7.02	0.28	3.84	0.14	0.16	0.04	0.00	0.00	0.00	0.00	4.48	3.36	19.32
1889	1.50	2.08	7.51	0.61	0.00	0.00	0.00	0.00	0.00	9.19	2.46	11.37	34.72
1890	7.27	......	......	......	......	......	......	......	......	......	......	......	....
Means	4.64	3.78	3.02	1.97	0.32	0.12	T	0.00	0.12	1.05	2.01	4.50	21.53

Monthly and annual precipitation at stations in California—Continued.

SAN LUIS REY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	6.04	4.03	3.12	0.38	0.00	0.13	......	......	......	0.05	0.16	0.07	....
1877	2.66	1.25	2.20	1.13	1.88	0.00	0.00	T	0.03	0.09	0.78	4.03	14.05
1878	3.95	7.90	2.49	5.56	1.40	0.47	0.00	T	T	......	......	......	....
Means	4.22	4.39	2.60	2.36	1.09	0.20	0.00	T	0.02	0.07	0.47	2.05	17.47

SAN MATEO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	0.00	0.00	0.00	6.35	....
1874	5.22	1.32	2.16	0.99	0.79	0.00	0.00	0.00	0.00	2.46	3.71	0.07	16.72
1875	4.62	0.56	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.85	3.15	17.00
1876	6.30	4.61	4.16	0.20	0.00	0.00	0.00	0.00	0.00	2.29	0.00	0.00	17.56
1877	3.26	0.75	1.01	0.00	0.03	0.00	0.00	0.00	0.00	0.80	0.81	1.34	8.00
1878	9.87	9.74	3.58	1.29	0.05	0.00	0.00	0.00	0.48	0.80	0.72	0.27	26.81
1879	3.86	3.48	5.85	1.24	1.58	0.09	0.00	0.01	0.00	0.52	1.77	3.14	21.53
1880	2.51	1.64	2.13	8.70	0.76	0.00	0.00	0.00	0.00	0.00	0.52	11.37	27.63
1881	4.26	2.34	0.80	1.58	0.03	0.22	0.00	0.00	0.16	0.69	1.16	3.01	14.25
1882	0.79	1.72	3.98	1.11	0.08	0.00	0.00	0.00	0.18	1.50	2.98	0.84	13.18
1883	1.93	0.59	2.72	1.81	2.92	0.00	0.00	0.00	0.30	1.14	0.21	0.92	12.54
1884	3.40	4.87	6.38	3.40	0.05	2.91	0.00	T	0.17	1.78	0.21	7.59	30.76
1885	2.36	0.19	0.52	4.20	0.05	0.10	0.00	0.00	0.02	0.13	6.88	2.34	16.79
1886	6.20	0.35	1.20	4.50	0.15	0.00	0.07	0.00	0.00	1.69	0.77	0.95	15.88
1887	1.21	9.16	0.72	1.68	0.00	0.00	0.00	0.00	0.47	0.00	1.08	3.44	17.76
1888	4.73	1.21	3.97	0.13	0.67	0.08	0.00	0.00	1.03	0.00	4.16	4.04	20.02
1889	1.17	0.75	6.94	0.81	1.08	0.00	0.00	0.00	0.00	5.98	4.01	12.44	33.21
1890	8.69	4.39	3.91	0.79	0.58	0.00	......	......	......	......	......	......	....
Means	4.14	2.80	2.99	1.91	0.52	0.20	T	T	0.17	1.16	2.18	3.60	19.67

SAN MIGUEL, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	0.24	0.21	....
1887	0.52	5.96	0.12	1.40	0.24	0.26	0.00	0.00	0.58	0.37	0.49	2.84	12.78
1888	4.06	0.13	2.34	0.00	0.22	0.00	0.00	0.00	[0.00]	0.00	2.44	2.11	[11.30]
1889	0.80	0.85	4.10	0.32	0.67	0.00	0.00	0.00	0.00	3.90	1.60	6.72	18.96
1890	3.79	3.13	0.81	0.00	0.18	0.00	......	......	......	......	......	......	....
Means	2.29	2.52	1.84	0.43	0.33	0.06	0.00	0.00	0.29	1.42	1.19	2.97	13.34

SAN PEDRO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	0.00	0.00	4.35	3.18	....
1889	0.75	0.86	4.20	0.00	0.00	0.00	0.00	0.00	0.00	3.56	......	7.39	....
1890	3.10	1.56	0.72	0.00	0.00	0.00	......	......	......	......	......	......	....
Means	1.92	1.21	2.46	0.00	0.00	0.00	0.00	0.00	0.00	1.78	4.35	5.28	17.00

SAN RAFAEL, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	0.00	4.68	14.23	0.23	....
1875	16.45	0.00	3.71	0.00	0.28	2.07	0.00	0.00	0.00	0.15	11.29	4.69	38.64
1876	10.42	10.84	11.21	1.15	0.27	0.00	0.00	0.00	0.45	7.35	0.12	0.00	41.81
1877	8.47	0.57	1.69	0.05	0.44	0.05	0.03	0.00	0.00	0.70	2.45	2.85	17.30
1878	25.35	18.57	5.10	0.81	0.57	0.00	0.00	0.00	0.55	2.99	1.38	0.68	56.00
1879	5.34	7.21	10.14	2.01	3.22	0.09	0.00	0.00	0.00	0.91	6.40	4.58	39.81
1880	5.12	2.33	2.63	14.15	1.84	0.00	0.00	0.00	0.00	0.01	0.33	18.67	45.08
1881	14.63	4.48	0.64	3.06	0.04	0.54	0.00	0.00	0.58	1.41	2.02	8.06	35.46
1882	2.77	7.82	4.57	2.40	0.32	0.00	0.00	0.00	1.84	6.72	6.09	3.09	35.62

***Monthly and annual precipitation at stations in California*—Continued.**

SAN RAFAEL, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	1.66	2.52	9.07	2.95	6.16	0.00	0.00	0.00	0.52	0.89	0.74	1.02	25.53
1884	7.53	8.58	11.76	11.18	0.35	2.03	0.00	0.00	0.15	1.39	0.43	25.10	68.50
1885	2.79	1.28	1.30	3.00	0.01	0.06	0.00	0.00	0.00	0.37	10.78	6.88	26.47
1886	12.26	0.28	3.62	6.53	0.73	0.00							
Means	9.40	5.37	5.45	3.94	1.19	0.40	T	0.00	0.34	2.30	4.69	6.32	39.40

SANTA ANA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.31	2.07	4.65	0.66	0.45	0.00	0.00	0.66	0.00	1.88	0.36	12.09	23.13
1890	4.75	1.66	3.22										
Means	2.53	1.86	3.94	0.66	0.45	0.00	0.00	0.66	0.00	1.88	0.36	12.09	24.43

SANTA BARBARA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867									0.00	0.00	2.31	12.67	
1868	3.97	2.00	1.08	2.44	0.72	0.00	0.00	0.00	0.00	0.00	1.25	4.26	15.72
1869	3.26	2.12	4.22	0.46	0.20	0.00	0.00	0.00	0.00	0.30	0.65	0.57	11.78
1870	0.25	5.87	0.83	0.99	0.74	0.07	0.00	0.00	0.00	1.04	0.27	1.41	11.47
1871	0.86	2.92	0.02	2.02	0.37	0.00	0.00	0.00	0.00	0.09	1.83	6.56	14.67
1872	2.53	1.81	0.18	1.80	0.00	0.14	0.00	0.02	0.05	0.00	0.00	4.34	10.87
1873	0.58	5.48	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	5.26	11.64
1874	4.54	3.17	0.78	0.28	0.14	0.00	0.00	0.00	0.00	1.91	1.30	0.00	12.12
1875	14.84	0.18	0.38	0.10	0.00	0.00	0.00	0.00	0.00	0.00	6.53	0.31	22.34
1876	7.56	5.67	2.73	0.27	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	16.55
1877	2.72	0.00	0.82	0.18	0.45	0.00	0.00	0.00	0.00	0.00	1.32	3.12	8.61
1878	7.17	11.73	2.47	3.34	0.29	0.07	0.00	0.00	0.00	0.32	0.00	5.16	30.55
1879	5.24	0.71	0.34	1.60	0.21	0.00	0.00	0.00	0.00	0.41	1.62	4.57	14.70
1880	1.30	10.86	1.15	5.73	0.00	0.00	0.00	0.00	0.00	0.25	0.28	9.73	29.30
1881	2.83	0.30	1.25	0.59	0.00	0.00	0.00	0.00	0.44	1.47	0.33	0.95	8.16
1882	1.13	2.38	5.74	1.63	0.00	0.20	0.00	0.00	0.00	0.37	0.77	0.10	12.32
1883	2.18	2.92	3.64	0.29	2.79	0.35	0.00	0.00	0.00	1.32	0.00	2.76	16.25
1884	6.33	9.68	9.77	2.60	0.39	1.62	0.00	0.00	0.00	1.02	0.79	6.62	38.82
1885	1.23	0.07	0.35	3.00	0.00	0.00	0.00	0.00	0.00	0.19	9.84	2.47	17.15
1886	5.12	1.19	2.03	3.40	0.00	0.00	0.00	0.00	0.00	0.39	0.87	0.86	13.86
1887	0.31	8.64	0.13	1.43	0.33	0.03	0.00	0.00	0.38	0.31	1.10	4.43	17.09
1888	10.15	1.30	3.86	0.16	0.02	T	T	T	0.03	0.07	5.62	5.59	26.80
1889	0.29	1.29	7.31	0.49	0.76	0.13	0.00	0.00	0.00	8.65	3.21	10.64	32.77
1890	5.32	2.96	1.10	0.31	0.18	0.00							
Means	3.90	3.62	2.18	1.44	0.33	0.11	T	T	0.04	0.80	1.75	4.02	18.19

SANTA CLARA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1859											3.25	1.29	
1878			2.80	1.48						0.20	0.35	0.40	
1879	2.25	1.40										[3.03]	[44.80]
1880							0.00	0.00	0.00	0.00	0.50	6.41	
1881	2.69	2.33	0.88	1.08	0.00	0.30	0.00	0.00	0.00	0.18	1.12	1.77	10.35
1882	1.25	1.50	4.96	1.15	0.25	0.00	0.00	0.00	0.12	1.10	1.29	1.68	13.30
1883	0.55	0.72	2.74	0.60	2.37	0.00	0.00	0.00	0.05	0.70	0.48	0.70	8.91
1884	4.10	3.99	5.80	2.90	0.00	1.65	0.00	0.05	0.00	1.88	0.05	4.32	24.74
1885	1.45	0.25	0.65	1.77	0.00	0.00	0.00	0.00	0.01	0.06	7.58	[3.03]	[14.80]
1886												0.57	
1887	[3.56]	6.94	0.70	1.22	0.00	0.00	0.00	0.00	0.41	0.10	0.69	2.45	10.37
1888	3.08	1.68	3.10	0.12	1.28	0.18	0.00	0.00	0.58	0.00	4.37	3.00	17.39
1889	0.58	0.48	5.82	0.74	0.91	0.01	0.00	0.00	0.00	4.88	2.01	10.78	26.21
1890	7.02	3.35	1.99	0.47	0.73								
Means	2.65	2.26	2.94	1.15	0.62	0.27	0.00	T	0.13	0.86	2.44	3.03	16.35

Monthly and annual precipitation at stations in California—Continued.

SANTA CRUZ, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	......	......	0.14	......	......
1874	[5.37]	1.51	3.72	1.60	0.38	0.15	0.00	0.00	0.14	3.27	[3.20]	0.19	[19.53]
1875	6.73	0.50	1.67	0.10	0.27	0.66	......	0.00	......	......	13.81	1.71	......
1876	10.86	6.42	......	......	0.00	......	......	......	......	2.48	......	......	......
1877	3.17	1.90	1.41	1.02	......	......	......	......	......	......	......	5.04	......
1878	10.56	14.71	4.04	2.06	0.00	0.00	0.00	0.00	1.27	2.75	0.30	1.34	37.03
1879	4.79	4.42	3.64	2.14	1.41	0.05	0.00	0.00	0.00	1.06	3.76	2.50	23.77
1880	1.44	1.04	2.12	5.60	0.70	0.00	0.00	0.00	0.00	0.00	0.40	12.59	23.89
1881	9.38	3.28	1.74	2.26	0.00	0.99	0.00	0.00	0.39	1.64	0.96	5.58	26.22
1882	3.08	3.04	5.57	2.26	0.24	0.07	0.00	0.00	0.65	2.47	2.28	1.41	21.07
1883	3.57	0.76	3.65	1.63	3.18	0.02	0.00	0.00	0.54	1.42	0.95	1.07	16.79
1884	3.30	5.27	8.76	6.78	0.11	2.48	0.00	0.10	0.33	1.37	0.32	8.91	37.73
1885	2.11	0.41	0.47	2.43	0.05	0.00	0.08	0.00	0.07	0.10	10.25	2.90	18.87
1886	7.60	0.80	3.05	7.00	0.30	0.00	0.00	0.00	0.00	0.79	1.10	2.20	23.44
1887	1.01	9.62	0.53	1.90	0.02	0.00	0.00	0.00	0.42	0.42	1.21	4.58	19.71
1888	8.00	1.93	4.61	0.57	1.08	0.09	0.00	0.00	0.37	0.00	6.17	5.07	27.89
1889	0.99	1.37	6.76	0.84	1.78	0.00	0.00	0.00	0.00	9.50	[3.20]	20.38	[44.82]
1890	9.40	4.90	5.58	1.06	1.22	0.00	......	......	......	......	......	......	......
Means	5.37	2.88	3.58	2.49	0.67	0.30	0.01	0.01	0.32	1.95	3.20	5.03	25.81

SANTA MARGARITA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	0.11	8.87	0.03	2.14	0.00	0.00	0.00	0.00	10.85	3.20	15.68	......
1890	8.53	7.72	3.49	......	......	......	......	......	......	......	......	......	......
Means	8.53	3.92	6.18	0.03	2.14	0.00	0.00	0.00	0.00	10.85	3.20	15.68	50.53

SANTA MARIA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	......	......	......	......	......	......	......	......	......	4.58	......
1885	0.58	......	0.14	1.16	......	......	......	......	......	0.00	8.78	1.63	......
1886	1.83	0.97	2.55	3.37	0.00	0.00	0.00	0.00	0.00	0.06	0.59	0.72	10.09
1887	0.50	5.95	0.25	1.07	0.22	T	0.00	0.00	0.30	0.40	1.09	2.69	12.47
1888	4.62	0.43	1.98	0.12	0.14	T	T	0.00	T	0.00	2.59	5.86	15.74
1889	0.42	1.35	4.20	0.97	0.60	0.05	0.00	0.00	0.00	7.53	1.80	6.71	23.63
1890	7.02	3.64	0.88	0.10	0.13	......	......	......	......	......	......	......	......
Means	2.50	2.47	1.67	1.13	0.22	0.01	T	0.00	0.08	1.60	2.97	3.70	16.35

SANTA MONICA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	......	......	......	......	......	0.00	0.00	0.00	0.05	1.44	2.51	......
1880	1.05	1.75	0.70	2.72	0.00	0.00	0.00	0.00	0.00	0.23	[3.37]	[2.96]	[12.78]
1885	0.05	0.20	0.60	0.07	0.20	0.02	[0.00]	0.00	0.00	0.25	10.65	2.75	[14.79]
1886	6.60	1.27	1.16	2.00	0.00	0.00	0.00	T	0.00	T	0.75	0.10	11.88
1887	0.05	7.07	0.26	2.47	1.40	0.00	0.00	0.00	0.30	0.00	1.13	2.93	15.61
1888	6.98	0.00	6.95	0.00	0.00	0.00	0.00	0.00	0.00	0.58	5.09	6.49	26.09
1889	0.23	1.03	5.74	0.00	0.16	0.00	0.00	0.11	0.33	5.87	1.18	[2.96]	[17.61]
1890	[2.49]	2.03	0.94	0.00	0.00	0.00	......	......	......	......	......	......	......
Means	2.49	1.91	2.34	1.04	0.25	T	0.00	0.02	0.09	1.00	3.37	2.96	15.47

SANTA PAULA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	0.00	......	0.10	4.07	4.85	......
1889	0.65	1.02	9.00	0.36	0.30	0.00	0.00	0.01	0.00	6.28	1.81	16.45	35.88
1890	5.40	2.00	0.47	......	0.00	0.00	......	......	......	......	......	......	......
Means	3.02	1.51	4.74	0.36	0.15	0.00	0.00	T	0.00	3.19	2.94	10.65	26.56

Monthly and annual precipitation at stations in California—Continued.

SANTA ROSA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	......	......	2.46	12.07	......
1874	6.32	3.05	3.95	1.01	......	......	......	......	......	......	......	......	......
1885	......	......	......	......	......	0.12	0.00	0.00	......	......	......	......	......
1888	......	......	......	......	......	......	......	0.00	0.62	0.00	3.48	5.37	......
1889	1.77	0.35	7.92	1.09	2.93	0.25	0.00	0.00	0.00	8.78	4.39	15.94	43.42
1890	12.84	4.74	6.15	1.82	1.40	0.00	......	......	......	......	......	......	......
Means	6.98	2.71	6.01	1.31	2.16	0.12	0.00	0.00	0.31	4.39	3.44	11.13	38.56

SAUSALITO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	......	......	......	......	......	0.00	0.00	0.25	0.89	1.56	5.15	......
1882	3.20	3.69	2.95	1.69	0.24	0.00	0.00	0.00	0.20	3.79	4.09	2.86	22.71
1883	1.72	1.14	3.30	1.94	4.30	0.17	0.00	0.00	0.45	0.69	3.21	1.31	18.23
1884	3.85	5.57	8.19	6.77	0.25	2.57	0.00	0.00	0.41	2.41	0.13	12.34	42.49
1885	2.94	0.39	0.88	2.94	T	0.25	0.00	0.00	0.00	0.45	12.05	3.97	23.87
1886	7.85	0.09	2.18	5.21	0.53	0.00	0.12	[0.00]	[0.37]	1.50	0.95	2.32	[21.12]
1887	......	10.05	......	......	......	......	......	......	0.26	......	0.95	3.56	......
1888	4.04	1.54	3.80	0.16	0.31	0.57	[0.02]	[0.00]	1.04	0.06	4.33	8.13	[24.00]
Means	3.93	3.21	3.55	3.12	0.94	0.59	0.02	0.00	0.37	1.40	3.42	4.96	25.51

SCOTT VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1859	......	......	......	......	......	......	......	0.50	0.87	1.00	4.33	0.75	......
1860	2.59	1.25	4.12	0.75	2.00	0.40	1.62	0.24	0.49	2.22	2.00	5.74	23.42
1861	1.12	2.50	2.50	3.00	0.54	0.30	0.00	0.00	0.00	0.51	11.56	10.63	32.66
1862	9.29	3.75	1.32	2.00	1.00	0.80	0.10	0.00	0.02	0.15	0.12	1.90	20.45
1863	4.75	1.75	2.45	2.00	0.40	1.93	0.25	0.09	0.40	0.25	1.85	6.17	22.29
1864	2.07	0.43	0.82	2.70	0.51	0.31	0.00	0.03	0.04	0.31	6 00	12.75	25.97
1865	1.87	2.40	1.30	0.32	0.05	0.75	0.35	0.02	1.15	1.33	9.79	1.21	20.54
1866	6.59	3.50	9.20	0.02	1.72	0.62	0.50	0.47	0.00	0.08	2.51	11.75	36.96
1867	9.12	2.02	0.64	1.34	0.44	0.01	0.00	0.26	0.40	0.88	1.75	9.68	26.54
1868	3.06	1.50	3.70	1.11	0.18	1.06	0.00	0.00	0.06	0.50	0.77	2.80	14.77
1869	5.76	1.13	1.32	3.61	1.52	0.69	0.13	0.00	1.00	0.01	3.04	3.56	21.77
1870	5.00	2.91	1.73	1.37	1.12	0.13	0.00	0.00	0.01	0.02	1.00	3.50	16.79
1871	1.86	2.47	1.62	2.27	0.55	0.26	0.35	0.00	0.37	0.05	1.62	7.68	19.10
1872	4.18	6.94	1.40	0.34	0.25	0.03	0.01	0.01	0.41	0.16	2.67	3.38	19.78
1873	1.33	3.00	1.05	1.50	0.27	0.03	0.03	0.05	0.37	0.94	1.71	4.49	14.77
1874	6.38	1.80	3.65	1.55	0.71	0.13	0.01	0.09	0.00	1.55	4.33	0.43	20.63
1875	3.13	0.17	1.79	0.35	0.75	0.12	0.38	0.05	0.00	4.45	7.31	7.33	25.83
1876	2.26	3.33	3.94	0.71	1.19	0.18	0.34	1.00	1.02	3.75	0.54	0.01	18.27
1877	1.71	4.23	3.10	1.23	1.48	0.71	0.12	0.02	0.01	0.45	0.67	1.62	15.35
1878	9.72	6.53	3.74	0.27	0.20	0.12	0.01	0.06	0.36	2.81	2.16	1.14	27.12
1879	3.25	3.54	8.39	2.66	1.40	0.27	0.38	0.47	0.11	0.81	4.64	4.58	30.50
1880	10.62	2.32	2.65	5.39	1.32	0.02	0.37	0.07	0.00	0.18	0.32	6.76	30.02
1881	13.95	6.53	0.79	1.19	0.17	1.04	0.54	0.04	0.76	3.53	2.40	4.60	35.54
1882	4.48	5.69	2.22	2.45	1.29	0.08	2.49	0.00	1.44	2.86	2.72	3.75	29.47
1883	2.58	1.51	1.11	3.25	2.65	0.00	0.40	0.63	0.66	2.41	1.11	4.75	21.06
1884	4.28	3.14	3.45	3.06	1.65	0.87	1.62	0.01	0.60	1.04	0.16	8.18	28.06
1885	2.50	3.49	0.11	1.98	1.40	1.40	1.16	0.01	0.83	0.53	10.24	3.26	26.91
1886	7.22	1.32	1.32	3.23	1.77	0.03	2.13	0.85	0.00	1.85	0.78	6.67	27.17
1887	5.18	4.96	1.07	2.63	0.94	0.36	0.37	0.18	0.36	0.09	1.75	5.88	23.77
1888	6.18	1.77	2.43	0.18	1.80	4.21	0.60	0.11	0.58	0.40	1.94	1.59	21.79
1889	2.71	0.50	4.35	2.56	4.71	0.19	1.11	0.00	0.00	3.95	3.37	12.84	36.29
1890	21.81	11.10	......	......	......	......	......	......	......	......	......	......	......
Means	5.37	3.14	2.58	1.84	1.13	0.57	0.51	0.17	0.40	1.26	3.07	5.14	25.18

SELMA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	......	......	......	......	......	2.46	......
1886	1.97	0.36	0.96	1.98	0.00	0.00	0.00	0.00	0.00	0.27	0.59	0.60	6.73
1887	0.31	2.84	0.00	2.60	0.58	0.00	0.00	0.00	[0.00]	0.20	0.16	0.97	[7.66]
1888	2.40	T	1.57	0.10	0.31	0.00	0.00	[0.00]	0.10	0.00	1.46	1.88	[7.82]
1889	0.36	0.53	1.85	0.47	0.70	[0.00]	0.00	0.00	0.00	3.60	1.09	3.98	[12.58]
1890	2.19	0.94	1.19	0.25	1.19	0.00	......	......	......	......	......	......	......
Means	1.45	0.93	1.11	1.08	0.56	0.00	0.00	0.00	0.03	1.02	0.82	1.98	8.98

Monthly and annual precipitation at stations in California—Continued.

SEVEN PALMS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.30	0.06	1.54	0.00	0.01	0.00	0.00	0.07	0.00	0.53	......	4.64	......
1890	0.52	0.10	......	0.00	0.00	0.00	......	......	......	......	......	......	......
Means	0.41	0.08	1.54	0.00	T	0.00	0.00	0.07	0.00	0.53	......	4.64	......

SHINGLE SPRINGS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1849	......	......	......	......	......	......	......	......	0.00	0.08	5.65	10.04	......
1850	13.07	2.15	6.80	0.45	0.02	0.00	0.00	0.00	1.23	0.10	0.65	2.70	27.17
1851	4.80	0.40	2.10	4.80	0.40	0.00	0.00	0.00	0.40	0.30	2.45	7.80	23.45
1852	3.20	0.50	9.60	7.25	1.00	0.00	0.00	0.00	0.00	0.50	7.20	11.40	40.65
1853	13.70	2.40	8.20	3.00	1.10	0.05	0.00	0.00	1.20	0.75	6.40	4.10	40.90
1854	4.40	3.40	4.30	5.40	0.20	0.30	0.00	0.00	0.00	3.72	2.70	3.50	27.92
1855	3.20	1.10	2.50	2.10	0.68	0.00	0.00	0.00	0.70	0.00	2.40	5.70	18.38
1856	4.10	0.80	3.40	1.20	0.20	0.10	0.00	0.00	0.00	0.00	2.15	6.35	18.30
1857	6.50	7.05	1.94	0.00	0.42	0.35	0.35	0.00	0.00	0.42	4.04	1.99	23.06
1858	2.37	2.69	4.00	1.70	0.20	0.60	0.00	0.00	0.00	3.25	0.50	6.20	21.51
1859	1.22	12.00	5.81	1.82	1.51	0.00	0.00	0.00	0.00	0.15	11.16	2.40	36.07
1860	2.20	1.15	4.71	3.40	2.10	0.02	0.80	0.00	0.00	1.20	0.50	7.43	23.51
1861	3.78	4.60	8.31	0.20	0.15	0.05	0.00	0.00	0.00	0.00	6.90	11.22	35.22
1862	34.13	6.75	6.90	7.31	4.10	1 90	2.56	0.00	0.00	0.78	0.37	2.84	67.67
1863	1.45	4.96	4.01	2.76	2.10	0.00	0.00	0.00	0.00	0.00	2.05	6.30	23.63
1864	7.29	3.21	0.63	3.94	0.85	0.00	0.00	0.00	0.00	0.08	9.94	9.13	35.07
1865	5.13	5.63	1.13	2.50	0.89	0.00	0.00	0.00	0.00	0.45	6.84	2.57	25.14
1866	11.08	3.46	6.21	1.31	4.88	0.18	0.00	0.00	0.00	0.00	4.73	18.77	50.62
1867	9.17	7.51	4.09	6.01	0.01	0.00	0.00	0.00	0.82	2.24	7.17	23.76	60.78
1868	12.12	3.70	14.39	......	......	......	......	......	......	......	......	......	......
1885	......	......	......	......	......	......	......	......	......	......	......	4.99	......
1886	10.77	0.69	3.84	9.51	0.71	......	......	......	......	1.66	0.93	3.50	......
1887	1.67	12.21	1.45	[3.20]	0.06	0.00	[0.20]	[0.00]	0.49	T	1.08	6.18	[26.54]
1888	8.82	1.08	4.22	0.43	0.18	0.31	......	......	......	......	......	4.45	......
1889	[7.72]	[4.09]	9.01	1.98	7.80	0.00	0.00	0.00	0.00	8.73	7.85	17.35	[64.53]
1890	13.50	6.70	10.48	......	2.75	0.00	......	......	......	......	......	......	......
Means	7.72	4.09	5.34	3.20	1.40	0.18	0.20	0.00	0.23	1.11	4.26	7.53	35.26

SIMS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	4.74	1.00	2.53	4.37	0.14	0.00	0.10	0.00	......	9.21	......
1889	0.42	......	......	1.87	3.55	2.73	0.00	0.00	0.00	28.57	13.32	19.85	......
1890	17.84	18.30	19.83	5.53	2.64	0.65	......	......	......	......	......	......	......
Means	9.14	18.30	12.28	2.80	2.91	2.58	0.07	0.00	0.05	14.28	13.32	14.53	90.26

SISSON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	0.95	0.00	......	......	......	0.02	0.40	......	2.17	2.91	......
1889	0.60	0.40	16.27	0.63	2.40	0.23	0 00	0.00	0.00	16.45	5.80	16.13	58.91
1890	......	9.33	5.30	2.98	2.75	......	......	......	......	......	......	......	......
Means	0.60	4.86	7.51	1.20	2.58	0.23	0.00	0.01	0.20	16.45	3.98	9.52	47.14

SMARTVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	......	0.00	0.00	0.00	0.00	......
1871	......	......	......	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	......
1872	8.28	13.50	3.91	1.87	0.08	0.37	0.00	0.00	0.00	0.00	4.78	11.74	44.53
1873	2.67	7.53	1.53	1.38	0.66	0.00	0.00	0.00	0.00	0.44	2.41	19.02	35.64
1874	9.42	5.26	6.55	2.90	0.78	0.00	0.00	0.00	0.00	2.72	9.90	0.98	38.51
1875	11.43	0.24	2.24	0.30	0.40	2.81	0.00	0.00	0.00	0.31	8.24	5.02	30.99
1876	6.51	7.11	6.84	2.05	0.65	0.00	0.43	0.00	0.00	5.41	0.60	0.00	29.60
1877	6.40	1.30	2.37	0.30	1.02	0.59	0.00	0.00	0.00	0.72	1.89	2.02	16.61

Monthly and annual precipitation at stations in California—Continued.

SMARTVILLE, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	9.95	8.25	5.54	1.77	0.24	0.24	0.00	0.00	1.00	1.20	1.32	0.61	30.12
1879	6.48	5.39	9.68	5.59	1.12	0.00	0.00	0.00	0.00	2.72	4.33	5.70	41.01
1880	2.89	2.71	1.66	12.32	2.98	0.00	0.00	0.00	......	......	......	......	......
Means	7.11	5.70	4.48	2.85	0.79	0.40	0.04	0.00	0.10	1.35	3.35	4.51	30.68

SOLEDAD, CAL.

1873	......	......	......	......	......	......	......	......	0.00	0.00	0.00	2.05	......
1874	1.62	0.32	1.73	0.40	0.23	0.00	0.00	0.00	0.00	0.15	0.13	0.00	4.58
1875	4.09	0.20	0.40	0.04	0.00	0.00	0.00	0.00	0.00	0.00	2.80	0.59	8.12
1876	5.26	3.45	3.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	12.15
1877	0.87	0.25	0.28	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.95	1.48	4.88
1878	3.69	4.63	0.73	0.74	0.00	0.00	0.00	0.00	0.00	0.06	0.05	1.44	11.34
1879	0.63	0.34	1.01	0.59	0.00	0.00	0.00	0.00	0.00	0.45	0.47	1.57	5.09
1880	0.55	1.05	0.87	2.19	0.23	0.00	0.00	0.00	0.00	0.00	0.18	3.14	8.21
1881	1.52	0.61	1.14	0.09	0.00	0.10	0.00	0.00	0.04	0.07	0.56	0.79	4.92
1882	0.96	1.92	4.65	0.26	0.49	0.00	0.00	0.00	0.00	0.46	1.08	0.25	10.07
1883	2.68	0.59	1.72	0.60	1.26	0.00	0.00	0.00	0.08	0.48	0.17	0.45	8.03
1884	2.74	4.24	3.74	1.67	1.13	1.56	0.00	0.10	0.00	1.78	0.30	1.74	19.00
1885	0.92	0.00	0.47	0.58	0.00	0.00	0.00	0.00	0.00	0.20	6.22	1.02	9.41
1886	2.44	0.93	1.69	1.93	0.00	0.00	0.02	0.00	0.00	0.32	1.04	0.15	8.52
1887	0.34	3.94	0.41	0.54	0.00	0.00	0.00	0.00	0.16	0.00	0.51	1.47	7.37
1888	2.86	0.55	2.10	0.15	0.35	0.00	0.00	0.00	0.25	0.00	2.03	1.73	10.02
1889	0.69	1.75	3.35	0.30	0.58	0.00	0.00	0.00	0.00	3.00	[1.13]	8.94	[19.74]
1890	3.79	2.53	0.37	0.00	0.01	0.00	......	......	......	......	......	......	......
Means	2.10	1.61	1.64	0.65	0.25	0.10	T	T	0.03	0.41	1.04	1.59	9.42

SONOMA, CAL.

1885	......	......	......	......	......	......	......	......	......	......	13.40	4.46	......
1886	7.84	0.28	1.38	7.09	0.29	0.00	0.00	0.00	T	0.95	0.27	2.36	20.46
1887	1.94	11.77	0.93	2.53	T	0.00	0.00	0.00	0.25	0.00	2.08	4.97	24.47
1888	5.78	0.70	4.55	0.19	1.42	0.73	0.01	0.00	0.86	0.00	5.02	8.30	27.56
1889	0.90	0.79	......			......	......	......	......	9.09	4.36	11.47	......
1890	6.02	12.87	6.16	1.80	1.12	T	......	......	......	......	......	......	......
Means	4.50	5.28	3.26	2.90	0.71	0.18	T	0.00	0.37	2.51	5.03	6.31	31.05

SOUTH VALLEJO, CAL.

1872	......	......	......	......	......	0.00	0.00	T	0.00	T	1.36	4.03	......
1873	0.75	1.78	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.09	1.04	4.62	8.88
1874	4.35	0.53	1.83	0.93	0.15	0.00	0.00	0.00	0.00	1.78	1.80	0.00	11.37
1875	3.81	0.00	0.44	0.00	0.00	0.65	0.00	0.00	0.00	0.49	2.73	1.95	10.07
1876	4.07	1.75	1.98	0.95	0.83	0.00	0.00	0.00	0.15	1.80	0.05	0.00	11.58
1877	3.13	1.41	0.48	0.00	T	0.07	0.00	0.00	0.00	0.33	0.57	0.96	7.14
1878	7.64	5.83	2.01	0.40	0.27	0.00	0.00	T	0.04	0.37	0.28	0.22	17.06
1879	2.60	2.58	4.35	0.45	1.43	0.03	0.00	0.00	0.00	0.53	2.09	3.56	17.62
1880	1.97	1.35	1.34	9.54	0.89	0.00	0.00	0.00	0.00	0.00	0.14	10.71	25.94
1881	5.27	3.44	0.75	1.14	0.27	0.26	0.00	0.00	0.30	0.40	1.57	3.26	16.66
1882	1.56	2.60	2.71	1.63	0.25	0.00	0.00	0.00	0.00	2.12	2.90	1.45	15.22
1883	1.47	0.99	3.57	1.42	2.53	0.00	0.00	0.00	0.61	0.56	0.42	0.72	12.29
1884	2.52	3.21	6.06	3.14	0.00	1.74	0.00	0.00	0.00	1.09	0.00	6.03	23.79
1885	1.75	0.26	0.24	1.85	0.00	0.00	0.00	0.00	0.00	0.50	7.87	4.30	16.77
1886	6.25	0.00	2.20	4.82	0.22	0.00	0.00	0.00	0.00	0.47	0.83	1.77	16.56
1887	1.15	7.72	0.46	1.90	0.00	0.00	0.00	0.00	0.39	0.09	0.48	3.06	15.16
1888	4.52	[2.23]	0.62	0.00	0.45	0.16	0.16	0.00	0.40	0.00	3.12	3.01	[14.67]
1889	0.88	0.66	6.19	0.73	2.10	0.00	0.00	0.00	0.00	4.85	2.15	9.60	27.16
1890	[3.16]	3.73	3.73	[1.71]	1.01	0.00	......	......	......	......	......	......	......
Means	3.16	2.23	2.20	1.71	0.58	0.15	0.01	T	0.10	0.85	1.63	3.29	15.91

Monthly and annual precipitation at stations in California—Continued.

SPADRA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	......	......	......	0.50	....
1875	9.60	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	5.72	0.74	16.91
1876	6.71	3.68	1.55	0.65	0.06	0.00	0.01	0.00	0.01	0.38	0.00	0.01	13.06
1877	2.61	0.00	1.74	0.35	1.00	0.03	0.00	0.00	0.00	0.61	0.34	2.88	9.56
1878	2.68	7.10	1.64	1.87	0.53	0.00	0.00	0.00	0.00	0.07	T	1.55	15.64
1879	2.65	0.68	0.18	0.91	0.12	0.00	0.00	0.00	0.00	0.66	1.96	3.81	10.97
1880	0.85	1.95	1.63	4.17	0.00	0.00	0.00	0.00	0.00	0.00	0.46	6.01	15.07
1881	1.30	0.59	1.31	0.55	0.00	0.00	0.00	0.00	0.00	0.35	0.08	0.81	4.99
1882	0.60	2.35	2.82	0.60	0.00	0.00	0.00	0.00	0.00	0.67	1.07	0.00	8.11
1883	0.40	0.00	2.21	0.05	1.40	0.00	0.00	0.00	0.00	0.95	0.00	1.30	6.31
1884	2.90	8.80	7.00	2.25	0.56	0.75	0.00	0.00	T	0.00	0.81	2.82	25.83
1885	1.55	0.00	0.10	1.58	0.22	0.00	0.00	0.12	0.00	0.90	2.72	0.90	8.09
1886	5.76	0.45	2.80	2.85	0.00	0.00	T	0.00	0.00	0.00	1.05	0.40	13.31
1887	0.20	7.36	0.00	2.17	0.00	0.00	0.00	0.00	T	0.00	0.68	2.25	12.66
1888	6.23	0.98	3.45	0.00	0.00	[0.00]	0.00	0.00	0.00	0.25	[0.80]	[2.31]	[14.05]
1889	0.15	[2.45]	4.97	0.47	0.61	0.00	0.00	0.00	0.00	3.64	1.23	7.69	[21.21]
1890	4.52	1.59	0.75	0.00	0.03	0.00	......	......	......	......	......	......	....
Means	3.06	2.42	2.01	1.15	0.28	0.05	T	0.01	T	0.57	1.13	2.13	12.81

STEELES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	1.00	1.32	....
1887	0.95	7.93	0.63	2.16	0.17	0.13	0.06	0.00	1.59	0.34	1.69	4.66	20.31
1888	8.60	0.49	3.44	0.36	0.23	0.00	0.00	T	0.05	0.00	5.45	3.35	21.97
1889	0.54	......	......	1.02	1.77	......	0.00	......	......	9.10	2.22	11.60	....
1890	6.45	4.66	2.96	0.30	0.40	0.00	......	......	......	......	......	......	....
Means	4.14	4.36	2.34	0.96	0.61	0.04	0.02	T	0.82	3.15	2.59	5.23	24.29

STOCKTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1853	2.40	0.62	2.02	2.70	1.25	0.00	0.00	0.00	0.00	0.00	0.61	1.35	10.95
1854	2.64	8.94	3.60	3.24	0.33	1.00	[0.01]	[0.00]	[0.00]	0.31	0.01	0.23	[20.38]
1856	2.90	1.35	1.05	1.24	0.86	0.00	0.00	0.00	0.00	0.42	1.04	2.88	11.74
1857	1.78	5.36	0.28	0.13	0.02	0.14	0.00	0.01	0.00	0.34	1.91	1.59	11.56
1870	[2.46]	1.80	1.02	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.92	[6.94]
1871	1.23	1.42	0.47	0.74	0.02	0.00	T	0.00	0.00	0.00	1.33	11.50	16.71
1872	2.40	3.41	1.35	0.53	0.10	0.05	0.00	T	0.00	T	0.89	6.31	15.04
1873	1.15	3.34	0.43	0.46	0.00	0.00	0.05	0.00	0.00	0.32	0.70	4.39	10.84
1874	3.54	1.32	3.91	0.56	0.47	0.00	0.00	0.00	0.00	1.28	3.75	0.25	15.08
1875	4.30	0.28	0.68	0.00	0.00	0.40	0.00	0.00	0.00	0.00	5.90	3.01	14.57
1876	3.26	2.47	3.31	0.74	0.15	0.00	0.12	0.00	0.00	2.14	0.30	0.00	12.49
1877	3.23	0.23	0 91	0.02	0.27	0.00	0.00	0.00	0.00	0.28	0.68	1.34	6.96
1878	5,38	6.77	2.57	0.99	0.00	0.00	0.00	0.00	0.00	0.41	0.55	0.03	16.70
1879	2.67	2.62	1.96	2.08	1.12	0.20	0.00	0.00	0.00	0.69	1.75	1.92	15.01
1880	1.78	1.46	0.96	6.40	0.97	0.00	0.00	0.00	0.00	0.00	0.47	8.03	20.07
1881	2.56	2.87	0.75	0.63	0.00	0.00	0.00	0.00	0.00	0.05	1.06	1.94	9.86
1882	1.03	1.20	3.40	1.94	0.00	0.00	0.00	0.00	0.35	1.60	1.31	0.27	11.10
1883	0.94	0.45	2.68	1.18	5.08	0.00	0.00	0.00	0.50	0.88	0.49	0.91	13.11
1884	1.68	4.02	5.77	2.65	0.31	1.05	0.00	0.00	0.08	1.58	0.00	5.48	22.62
1885	1.11	0.05	0.23	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.74	3.08
1886	4.36	0.05	1.60	3.25	0.00	0.00	0.00	0.00	0.00	0.28	0.75	0.69	10.98
1887	0.36	3.30	0.23	1.37	0.00	0.00	0.00	0.00	0.28	0.00	0.43	2.69	8.66
1888	3.00	0.58	1.74	0.55	0.54	[0.00]	0.00	0.00	0.31	0.00	2.66	2.71	[12.09]
1889	0.25	0.87	3.58	0.19	1.74	[0.00]	[0.00]	0.00	0.00	0.98	3.29	6.67	[17.57]
1890	4.99	1.66	1.76	1.21	0.65	0.00	......	......	......	......	......	......	....
Means	2.46	2.26	1.85	1.38	0.56	0.12	0.01	0.00	0.07	0.48	1.25	2.74	13.18

SUMMIT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	9.60	7.30	0.40	0.90	......	......	0.00	0.00	0.24	2.90	4.70	....
1871	7.60	7.55	4.05	4.00	0.31	0.89	0.00	0.00	0.30	0.40	8.50	27.00	60.60
1872	4.00	16.10	5.90	5.60	0.30	0.00	0.00	0.00	0.00	0.00	0.00	6.00	37.90
1873	2.31	16.20	6.05	2.55	2.11	0.00	0.03	T	0.00	0.00	0.00	11.70	40.95
1874	5.00	0.00	0.00	2.00	3.60	T	0.00	0.00	0.00	3.80	3.60	0.85	13.85

Monthly and annual precipitation at stations in California—Continued.

SUMMIT, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	8.15	0.12	4.80	0.80	1.46	2.55	T	0.00	0.00	[2.23]	6.50	7.25	[33.86]
1876	14.65	8.70	13.80	2.60	1.60	T	1.21	0.10	0.56	2.98	0.50	0.20	46.90
1877	8.90	0.69	3.44	[4.84]	3.75	0.12	0.00	0.00	0.30	0.55	3.34	0.80	[26.73]
1878	10.00	11.50	3.05	2.40	1.60	0.00	0.00	0.09	0.44	1.21	0.80	1.60	32.69
1879	13.65	8.70	21.05	4.52	2.55	0.10	0.00	T	0.00	4.20	5.60	13.30	73.67
1880	6.60	7.50	8.90	30.40	3.60	0.00	0.80	0.00	0.00	0.00	0.50	6.20	64.50
1881	7.50	4.60	1.50	1.00	0.05	0.50	0.00	0.00	0.60	3.10	3.05	9.05	30.95
1882	7.40	9.00	19.30	3.25	0.60	0.00	0.00	0.00	0.75	12.95	3.95	4.92	62.12
1883	1.00	2.60	7.70	3.40	3.42	0.00	0.00	0.00	0.10	0.95	1.20	3.20	23.57
1884	7.60	12.70	9.10	12.60	0.80	4.04	0.00	0.00	1.10	3.13	0.00	9.40	60.47
1885	1.40	0.58	0.10	4.88	1.00	0.80	0.00	T	0.05	0.00	13.60	3.00	25.41
1886	13.90	1.40	7.80	6.40	0.95	0.00	0.00	0.00	0.00	3.10	1.70	5.75	41.00
1887	6.25	20.70	1.40	5.80	0.95	1.60	0.10	T	T	0.07	1.50	11.60	49.97
1888	9.20	1.29	8.05	2.30	1.04	3.72	3.51	0.28	0.00	0.00	[3.37]	5.26	[38.02]
1889	1.00	1.50	9.55	1.90	6.30	0.22	0.00	0.00	0.00	5.65	6.80	18.50	51.42
1890	19.20	11.60	14.00	0.00	......	0.00	......	......	......	......	......	......	....
Means	7.77	7.27	7.47	4.84	1.84	0.73	0.30	0.02	0.21	2.23	3.37	7.51	43.56

SUMNER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	......	......	......	0.01	....
1875	3.18	0.00	0.13	0.00	[0.30]	0.00	0.00	0.00	0.00	0.00	2.14	0.56	[6.31]
1876	0.74	0.76	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	2.37
1877	1.26	0.28	0.75	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.71	1.61	5.10
1878	1.57	1.50	1.45	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.66
1879	0.04	0.12	0.11	1.01	0.00	0.00	0.00	0.00	0.00	0.49	0.24	1.73	3.74
1880	0.66	1.15	0.25	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	4.17
1881	0.60	0.58	0.57	0.58	0.00	0.00	0.00	0.00	0.00	0.10	0.28	0.16	2.87
1882	0.95	0.44	0.65	0.42	0.25	0.05	0.00	0.00	0.00	0.00	0.42	0.00	3.18
1883	0.00	0.80	0.25	1.05	1.31	0.00	0.00	0.00	0.00	0.30	0.05	0.20	3.96
1884	1.48	2.20	1.06	1.27	1.74	0.90	0.00	0.00	0.00	0.00	0.40	3.35	12.40
1885	0.00	0.02	1.50	2.35	0.05	0.00	0.05	0.00	0.00	0.03	1.94	1 23	7.17
1886	0.85	0.20	0.35	0.94	0.00	0.35	0.00	0.00	0.00	0.00	0.60	0.45	3.74
1887	0.20	2.23	0.00	2.04	0.20	0.00	T	0.00	0.00	0.55	0.10	0.69	6.01
1888	1.64	1.60	0.31	0.12	0.42	0.00	0.00	0.00	0.00	0.00	......	......	....
Means	0.94	0.85	0.58	0.89	0.30	0.09	0.00	0.00	0.00	0.11	0.53	0.79	5.14

SUSANVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	......	......	......	0.50	5.92	3.23	....
1886	4.27	0.92	2.70	1.70	1,28	1.22	0.57	0.30	......	1.32	......	2.23	....
1887	......	5.57	......	......	......	......	......	......	......	......	......	......	....
1888	......	......	......	......	......	......	......	......	......	0.01	1.45	1.89	....
1889	0.03	0.60	4.81	1.07	6.26	1.55	0.05	0.00	0.00	4.18	2.74	8.55	29.84
1890	8.72	4.71	4.60	1.06	1.51	0.14	......	......	......	......	......	......	....
Means	4.34	2.95	4.04	1.28	3.02	0.97	0.31	0.15	0.00	1.50	3.37	3.98	25.91

SUTTER CREEK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	2.04	12.27	1.68	5.38	0.12	0.00	0.00	0.00	0.54	0.00	1.10	5.15	28.28
1888	5.21	0.36	1.87	0.60	0.21	0.20	0.00	0.00	0.47	0.00	2.75	2.74	14.41
1889	0.22	0.87	4.60	0.79	3.68	0.05	0.00	0.00	0.00	7.63	3.99	11.75	33.58
1890	8.77	......	......	......	......	......	......	......	......	......	......	......	....
Means*	6.22	4.34	4.68	4.24	1.33	0.37	0.02	0.02	0.28	1.94	3.64	4.70	31.78

The monthly data from Oct., 1876, to Dec., 1886, are not now available. The averages, however, have been included in the means here given.

TEHACHAPI, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	......	......	0.00	0.00	....
1877	0.56	0.14	0.89	0.60	0.12	0.00	0.02	0.00	0.00	T	0.50	2.91	5.74
1878	2.59	6.32	1.76	1.93	0.28	0.09	0.00	T	0.00	0.30	0.04	0.64	13.95
1879	2.62	0.45	0.19	1.39	0.09	0.12	0.00	0.00	0.00	0.52	1.03	5.52	11.93

Monthly and annual precipitation at stations in California—Continued.

TEHACHAPI, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	2.81	1.94	1.47	2.24	0.00	0.00	0.00	0.00	0.00	0.75	0.10	2.01	11.32
1881	1.79	2.05	2.94	0.50	0.06	0.00	0.00	0.00	0.32	0.10	0.60	0.12	8.48
1882	0.65	2.91	1.40	0.63	0.20	0.15	0.00	0.00	0.00	0.74	0.18	0.50	7.36
1883	0.15	4.47	1.51	2.72	1.73	0.00	0.00	0.00	0.00	0.81	0.14	0.72	12.25
1884	1.54	7.26	3.46	1.85	1.26	1.05	0.00	0.64	0.00	0.13	0.29	3.96	21.44
1885	0.10	0.00	0.26	1.48	0.30	0.00	0.05	0.31	0.00	0.00	3.70	0.52	6.72
1886	1.58	6.06	4.10	4.57	0.00	0.00	0.10	0.00	0.00	T	1.15	0.60	18.16
1887	0.50	8.88	0.24	1.95	0.26	0.00	0.00	0.00	0.00	0.86	0.26	1.44	14.39
1888	2.57	2.60	1.20	1.25	0.25	[0.00]	[0.00]	[0.00]	0.00	0.00	0.00	3.65	[11.52]
1889	0.40	0.60	3.56	[1.62]	1.07	0.00	0.00	0.80	0.00	2.70	0.70	5.30	[16.71]
1890	1.75	0.70	0.30	0.00	0.00	0.00	......	......	......	......	......	......	....
Means	1.40	3.17	1.66	1.62	0.40	0.11	0.01	0.15	0.02	0.53	0.62	1.99	11.73

TEHAMA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	......	0.00	0.00	2.00	3.36	....
1871	3.00	1.60	0.81	1.83	0.80	0.00	0.00	0.00	0.00	T	0.00	0.00	8.04
1872	0.00	3.63	1.38	0.99	0.00	0.00	0.00	0.10	1.10	0.07	0.00	2.83	10.10
1873	1.46	4.64	0.77	0.08	T	0.00	0.00	0.00	0.00	0.00	0.00	6.63	13.58
1874	3.64	2.16	1.84	0.33	0.00	0.00	0.00	0.00	0.00	0.00	1.61	0.00	9.58
1875	3.87	0.00	0.47	0.00	0.00	0.00	0.00	T	0.00	0.95	5.15	2.00	12.44
1876	4.80	4.44	2.87	0.98	T	T	0.75	T	0.01	1.59	0.71	0.00	16.15
1877	1.87	1.45	1.89	0.04	1.84	0.42	0.10	0.02	0.00	2.05	1.59	1.64	12.91
1878	11.35	7.00	4.31	1.34	0.44	0.10	0.00	0.00	0.00	0.55	1.30	0.39	26.78
1879	2.07	0.94	1.25	1.55	1.20	0.10	0.01	0.70	0.00	0.92	3.00	4.58	16.32
1880	0.78	1.35	0.50	3.62	0.19	0.00	0.00	0.00	0.00	0.05	0.10	5.42	12.01
1881	1.65	0.75	0.36	0.82	0.40	0.85	T	0.00	0.35	1.25	0.35	3.09	9.87
1882	1.03	2.93	2.17	1.32	0.05	0.28	0.00	0.00	0.08	2.72	3.77	0.62	14.97
1883	0.73	0.39	2.14	1.33	2.75	0.00	0.00	0.00	1.03	1.70	0.50	0.44	11.01
1884	3.15	2.08	4.94	2.61	0.20	1.55	0.00	0.00	0.00	0.69	0.00	6.16	21.38
1885	1.67	0.60	0.05	0.70	0.73	0.72	0.00	0.00	0.48	T	10.42	3.00	18.37
1886	4.08	T	0.98	4.00	0.18	0.00	0.00	T	0.00	0.78	T	2.00	12.02
1887	0.33	4.29	1.10	1.56	0.45	0.00	0.00	0.00	0.00	0.00	1.56	2.62	11.91
1888	4.70	2.40	4.10	0.25	0.25	0.30	0.00	0.00	0.00	0.00	[1.87]	8.33	[22.20]
1889	0.20	0.30	10.41	0.62	0.34	0.95	0.00	0.00	0.00	11.58	3.41	11.45	39.26
1890	4.68	1.05	3.79	0.75	1.45	0.00	......	......	......	......	......	......	....
Means	2.75	2.10	2.31	1.24	0.56	0.26	0.05	0.04	0.15	1.24	1.87	3.23	15.80

TEJON, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1855	......	......	1.58	3.78	0.61	0.00	......	0.00	0.99	0.05	1.56	7.50	....
1856	4.41	7.88	2.24	4.98	4.62	0.00	0.00	0.30	0.08	0.05	3.12	6.54	34.22
1857	0.37	0.95	0.00	0.04	0.63	0.00	0.07	0.12	0.00	2.11	1.04	4.50	9.83
1858	2.60	0.75	7.39	5.37	0.09	1.20	0.00	0.35	0.44	2.62	0.25	3.07	24.13
1859	0.29	[2.03]	1.22	[2.37]	0.00	0.00	0.00	0.07	8.58	0.16	[1.13]	0.00	[15.85]
1860	0.22	0.25	0.20	0.60	0.20	[0.21]	[0.01]	T	0.00	T	0.12	0.93	[2.74]
1861	0.73	0.31	0.26	T	T	......	......	......	......	......	......	......	....
1863	......	......	......	......	......	......	......	......	T	T	0.71	0.49	....
1864	0.42	......	......	1.80	1.09	0.04	T	0.10	......	......	......	......	....
Means	1.29	2.03	1.84	2.37	0.90	0.21	0.01	0.13	1.44	0.71	1.13	3.29	15.35

TEMPLETON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	0.45	0.78	....
1887	0.61	7.21	0.47	1.51	0.06	0.35	0.00	0.00	0.56	0.24	0.79	3.18	14.98
1888	6.05	0.32	5.00	0.38	0.34	0.04	0.00	0.00	0.07	0.00	4.53	3.20	19.93
1889	0.78	1.20	6.35	0.54	2.05	0.00	0.00	0.00	0.00	8.57	1.84	10.68	32.01
1890	6.55	5.83	2.07	0.16	0.22	0.00	......	......	......	......	......	......	....
Means	3.50	3.64	3.47	0.65	0.67	0.10	0.00	0.00	0.21	2.94	1.90	4.46	21.54

Monthly and annual precipitation at stations in California—Continued.

TENNANT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	....	10.75	2.90	2.52	0.00	0.00	0.00	0.00	0.12	0.15	0.69	0.55	....
1879	3.79	4.59	3.97	1.49	1.85	0.15	0.00	0.00	0.00	0.94	1.80	4.98	23.56
1880	2.32	2.20	1.94	10.84	0.75	0.00	0.00	0.00	0.00	0.00	0.30	14.43	32.78
1881	6.76	1.45	1.28	0.57	0.00	0.02	0.00	0.00	0.08	0.30	0.76	2.37	13.59
1882	1.42	2.19	6.57	1.02	0.37	0.08	0.00	0.00	0.00	1.52	1.90	0.20	15.27
1883	3.11	1.10	3.79	1.08	3.38	0.00	0.00	0.00	0.37	0.96	0.38	1.01	15.18
1884	5.23	5.96	10.09	4.19	0.14	1.42	0.00	0.22	0.27	1.76	0.12	8.11	37.51
1885	1.31	0.00	1.56	2.72	[0.93]	0.04	0.00	0.00	0.00	0.00	......	......	....
Means	3.42	3.53	4.01	3.05	0.93	0.21	0.00	0.03	0.10	0.70	0.85	4.52	21.35

TERWAH, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1859	......	......	......	3.47	2.00	0.30	0.08	1.42	6.61	4.03	15.35	7.44	....
1860	7.68	7.17	8.53	6.55	5.12	0.05	1.24	0.00	2.54	7.25	10.07	15.60	71.80
1861	12.26	10.39	8.48	8.20	3.76	......	......	......	2.29	......	......	......	....
Means	9.97	8.78	8.50	6.07	3.63	0.17	0.66	0.71	3.81	5.64	12.71	11.52	72.17

TIPTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	......	0.45	....
1887	0.44	3.15	0.12	2.77	0.66	0.00	0.00	0.00	T	0.20	0.80	0.37	8.51
1888	2.47	0.50	1.09	......	......	......	......	......	......	......	......	......	....
Means	1.46	1.82	0.60	2.77	0.66	0.00	0.00	0.00	T	0.20	0.80	0.41	8.72

TOWLES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	0.00	0.00	0.80	0.00	14.40	7.00	....
1886	9.80	0.50	5.10	3.80	0.00	0.00	0.00	0.00	0.00	0.80	0.80	3.00	23.80
1887	4.35	11.60	1.10	1.20	T	0.00	T	0.00	0.00	0.00	0.90	[5.00]	[24.15]
1888	......	......	......	......	......	......	0.08	......	......	......	......	......	....
1889	0.45	0.90	0.60	......	......	......	0.00	0.00	0.00	......	......	......	....
1890	19.40	14.60	3.00	0.00	1.00	0.00	......	......	......	......	......	......	....
Means	8.50	6.90	2.45	1.67	0.33	0.00	0.02	0.00	0.20	0.27	5.37	5.00	30.71

TRACY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	......	......	......	......	0.15	0.10	....
1879	2.32	2.07	2.15	0.96	0.66	0.27	0.00	0.00	0.00	0.32	1.55	1.97	12.27
1880	0.69	1.03	0.62	2.77	0.25	0.00	0.00	0.00	0.00	0.00	0.43	5.08	10.87
1881	1.85	1.61	0.95	0.76	0.00	0.00	0.00	0.00	T	0.15	0.70	0.85	6.87
1882	0.70	0.50	2.43	1.48	0.46	0.00	0.00	0.00	0.20	0.75	0.70	0.20	7.42
1883	1.90	0.40	1.83	0.30	1.82	0.00	0.00	0.00	0.20	0.40	0.30	0.55	7.70
1884	0.90	3.43	3.27	1.65	0.10	2.05	0.00	0.10	0.00	0.82	0.00	2.49	14.81
1885	0.93	0.10	0.10	0.37	0.00	0.00	0.00	0.00	0.00	0.00	5.60	0.85	7.95
1886	2.55	0.35	1.40	1.55	0.00	0.00	0.00	0.00	0.00	0.40	0.10	0.50	6.85
1887	0.03	2.93	0.29	3.02	0.00	0.00	0.00	0.00	T	0.01	0.05	2.43	8.75
1888	1.99	0.84	0.61	0.00	0.54	0.19	0.00	0.00	0.35	0.00	2.85	1.71	9.08
1889	0.60	0.55	3.20	0.30	0.75	0.00	0.00	0.00	0.00	3.02	2.59	6.85	17.86
1890	4.76	1.98	1.56	0.97	0.19	0.00	......	......	......	......	......	......	....
Means	1.60	1.32	1.53	1.18	0.40	0.21	0.00	0.01	0.07	0.53	1.25	1.96	10.06

TRAVER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	......	......	......	......	......	1.77	....
1886	1.90	0.47	1.06	2.01	0.00	0.00	0.00	0.00	0.00	0.10	0.67	0.95	7.16
1887	0.45	3.05	0.32	2.27	0.70	0.14	0.00	0.00	0.26	[1.58]	[1.37]	0.97	[11.11]
1888	[1.32]	[1.24]	[1.10]	T	0.11	0.00	0.00	0.00	0.18	0.00	2.33	2.20	[8.48]
1889	0.36	0.33	1.90	0.72	1.04	0.00	0.00	0.00	0.00	4.65	1.10	3.55	13.65
1890	2.55	1.10	1.12	0.35	0.81	0.00	......	......	......	......	......	......	....
Means	1.32	1.24	1.10	1.07	0.53	0.03	0.00	0.00	0.11	1.58	1.37	1.89	10.24

Monthly and annual precipitation at stations in California—Continued.

TROPICO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	6.25	1.32	4.20	0.15	0.10	0.00	0.00	0.00	0.00	0.68	3.34	3.51	19.55
1889	0.17	......	......	......	0.00	0.00	0.00	0.30	0.00	......	1.00	16.12	......
1890	......	4.16	0.45	0.04	0.00	0.00	......	......	......	......	......	......	......
Means	3.21	2.74	2.32	0.10	0.03	0.00	0.00	0.15	0.00	0.68	2.17	9.82	21.22

TRUCKEE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[5.90]	6.18	4.35	0.12	2.40	0.80	1.30	[0.05]	0.00	0.00	0.51	1.67	[23.28]
1871	4.80	4.23	3.18	2.00	0.28	[0.42]	0.00	0.00	0.20	0.02	5.35	16.23	[36.71]
1872	3.42	10.49	3.63	4.11	0.60	0.30	0.00	0.00	0.00	0.40	0.60	3.74	27.29
1873	3.78	9.55	1.69	1.36	0.55	0.00	T	0.00	0.00	0.11	0.42	8.70	26.16
1874	9.54	6.15	9.35	2.61	0.68	0.11	0.56	0.07	0.04	2.44	3.54	0.60	35.69
1875	8.50	0.20	1.20	0.90	0.00	1.81	0.40	0.03	T	0.62	8.94	4.90	27.50
1876	9.85	5.50	6.95	1.83	0.84	0.01	0.05	0.03	0.03	3.64	0.07	0.05	28.85
1877	9.45	0.39	1.84	1.03	1.12	0.36	0.00	0.00	0.04	0.00	1.66	0.24	16.13
1878	5.97	11.80	2.07	0.80	1.17	0.10	0.00	0.28	0.23	0.75	2.14	0.50	25.81
1879	7.70	2.68	5.25	1.55	0.45	0.00	0.00	0.00	0.07	1.40	3.78	4.98	27.86
1880	2.95	4.65	4.65	12.74	2.50	0.00	0.16	0.00	0.00	0.00	0.45	9.51	37.61
1881	5.71	2.13	1.85	0.49	0.40	1.26	0.18	0.00	0.25	2.50	2.70	3.80	21.28
1882	6.40	4.95	12.05	1.89	0.85	0.98	0.60	0.00	0.00	0.85	1.01	0.80	30.50
1883	1.55	3.05	1.65	2.19	1.13	0.00	0.53	0.00	[0.12]	2.46	2.50	1.62	[16.80]
1884	6.65	11.20	5.38	3.90	0.14	1.02	0.00	0.10	0.78	1.50	0.00	13.14	43.81
1885	1.80	0.54	0.56	2.04	0.08	0.00	0.00	0.25	0.47	0.00	6.95	2.22	14.91
1886	7.08	0.50	2.90	1.78	0.60	0.56	0.89	0.00	T	0.85	1.10	2.29	18.55
1887	3.43	12.25	0.36	2.00	2.04	0.37	0.40	T	0.00	0.00	0.30	4.80	25.95
1888	2.35	0.00	0.00	T	0.70	0.80	0.72	0.20	[0.12]	0.00	[2.38]	1.58	[8.85]
1889	0.80	1.40	2.51	1.01	4.51	0.00	0.00	0.00	0.00	3.13	3.29	2.51	19.16
1890	16.20	8.90	7.29	0.20	1.44	0.00	......	......	......	......	......	......	......
Means	5.90	5.08	3.75	2.13	1.07	0.42	0.29	0.05	0.12	1.03	2.38	4.19	26.41

TULARE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	0.00	0.26	......	0.00	0.00	0.00	......	T	T	0.00	......
1875	4.75	0.20	0.50	T	0.15	0.25	0.00	0.00	0.00	0.00	0.00	0.33	6.18
1876	1.54	2.23	1.92	0.00	0.00	0.00	T	0.00	0.00	0.05	0.00	0.00	5.74
1877	1.70	1.50	0.10	0.30	0.00	0.00	0.75	0.00	0.00	0.00	0.27	1.30	5.92
1878	1.72	2.50	0.73	1.14	T	0.00	0.00	0.00	0.00	0.38	0.07	0.07	6.61
1879	0.65	0.10	0.27	1.16	0.30	0.07	0.00	0.00	0.00	0.15	0.34	1.14	4.18
1880	0.56	2.37	0.24	2.62	0.20	0.00	0.00	0.00	0.00	T	0.44	4.50	10.93
1881	1.99	0.95	1.33	0.65	0.12	0.00	0.00	0.00	0.00	0.22	0.30	0.06	5.62
1882	0.60	0.90	0.66	1.57	0.40	0.00	0.00	0.00	0.29	0.72	0.69	0.07	5.90
1883	0.00	0.15	1.96	0.82	1.37	0.00	0.00	0.00	T	0.36	0.06	0.47	5.19
1884	1.68	2.97	2.64	1.97	0.48	1.02	0.00	0.00	0.00	0.16	0.08	2.61	13.61
1885	0.28	0.00	0.86	1.44	0.13	0.00	0.05	0.00	0.00	0.06	3.36	1.48	7.66
1886	1.41	0.15	0.80	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.55	5.40
1887	0.45	1.98	0.11	1.52	0.90	0.00	0.00	0.00	0.01	0.18	0.05	0.70	5.90
1888	2.89	0.19	1.14	0.00	1.11	0.00	0.00	0.00	0.00	0.00	1.66	1.38	8.37
1889	0.74	0.19	2.20	0.66	0.72	0.00	0.00	0.00	0.00	4.17	0.43	2.60	11.71
1890	2.75	0.74	0.81	0.22	0.20	0.00	......	......	......	......	......	......	......
Means	1.48	1.07	0.96	0.96	0.38	0.08	0.05	0.00	0.02	0.40	0.52	1.08	7.00

LEWIS CREEK (TUOHY'S RANCHE), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	0.50	0.17	0.42	1.40	0.52	0.09	0.00	0.00	0.00	0.39	1.62	2.82	7.93
1880	0.97	1.97	0.92	4.67	0.27	0.00	T	0.00	0.00	0.07	0.40	4.91	14.18
1881	2.26	1.50	0.92	0.38	0.28	0.00	0.00	0.08	0.05	0.39	0.59	T	6.45
1882	0.83	1.70	0.81	0.91	0.08	0.10	0.00	0.00	0.16	0.88	0.90	0.06	6.43
1883	0.01	0.32	0.61	1.41	1.97	0.00	0.00	0.00	0.02	0.36	0.00	0.61	5.34
1884	2.71	9.01	3.54	3.98	3.86	0.70	0.00	0.00	0.00	0.86	0.26	4.99	29.94
1885	0.55	T	0.81	0.90	1.02	0.00	0.00	0.00	0.00	0.01	4.56	1.94	9.82
1886	1.82	0.51	1.76	2.49	T	T	T	0.00	0.00	0.22	0.85	1.08	8.73
1887	0.63	6.61	0.33	3.15	2.50	0.00	T	0.00	T	[0.86]	0.08	1.08	[15.25]

Monthly and annual precipitation at stations in California—Continued.

LEWIS CREEK (TUOHY'S RANCHE), CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	4.09	0.46	2.29	......	0.00	......	......	0.00	......	......	......	......	......
1889	1.00	0.39	2.45	0.41	1.36	0.05	0.00	T	0.00	4.54	0.73	4.42	15.35
1890	5.02	1.09	1.40	T	0.55	0.00	......	......	......	......	......	......	......
Means	1.70	1.98	1.36	1.79	1.03	0.09	T	0.01	0.02	0.86	1.00	2.19	12.03

TURLOCK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	[1.40]	1.30	1.01	1.35	0.50	0.12	0.00	0.00	0.00	0.79	2.24	1.24	[9.95]
1880	0.78	1.96	0.93	4.09	0.68	0.00	0.00	0.00	0.00	0.02	0.75	3.30	12.51
1881	1.42	2.11	0.74	0.73	0.00	0.00	0.00	0.00	0.00	0.45	1.10	0.95	7.50
1882	0.93	1.24	2.55	1.88	0.00	0.00	0.00	0.00	0.11	0.58	1.09	0.00	8.38
1883	1.15	0.39	1.72	0.40	1.75	0.00	0.00	0.00	0.10	1.31	0.32	0.51	7.65
1884	1.47	2.94	2.00	2.20	0.73	1.93	0.00	0.00	0.08	0.85	0.00	2.46	14.66
1885	1.22	0.00	0.32	1.14	0.00	0.00	0.00	0.00	T	0.00	6.63	1.10	10.41
1886	2.52	0.08	1.75	3.01	0.00	0.00	0.00	0.00	0.00	0.29	0.50	0.55	8.70
1887	0.16	2.30	0.3[illegible]	1.08	0.00	T	0.00	0.00	1.00	0.00	0.03	1.28	6.21
1888	2.19	0.19	1.11	0.18	0.52	0.00	T	0.00	0.82	0.00	2.75	1.28	9.04
1889	0.31	0.33	2.11	0.17	0.92	T	0.00	0.00	0.00	2.65	4.39	6.53	17.41
1890	3.22	1.18	0.71	0.80	0.53	0.00	......	......	......	......	......	......	......
Means	1.40	1.17	1.28	1.42	0.47	0.17	T	0.00	0.19	0.63	1.80	1.75	10.28

UKIAH, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	7.38	4.70	2.14	0.59	0.35	0.00	0.00	0.00	0.00	1.50	4.38	3.59	24.63
1878	19.03	17.24	7.60	1.27	0.27	0.00	0.00	0.00	1.05	3.70	0.00	0.68	50.84
1879	4.44	6.17	14.47	3.36	2.36	0.00	0.00	0.12	0.60	0.87	5.92	10.08	48.39
1880	5.03	2.17	4.45	11.78	1.84	0.00	0.00	0.00	0.00	0.00	0.15	12.27	37.69
1881	10.25	4.96	0.70	1.08	0.08	0.00	0.00	0.00	0.22	1.00	1.00	6.72	26.01
1882	3.41	7.87	4.06	1.92	0.50	0.00	0.00	0.00	0.73	2.70	3.95	2.88	28.02
1883	2.88	1.25	3.62	3.21	2.71	0.00	0.00	0.00	1.15	1.85	0.64	1.31	18.62
1884	4.12	3.32	5.42	5.16	0.43	1.01	0.00	0.01	0.40	0.76	0.17	12.94	33.78
1885	2.51	1.91	0.25	0.43	0.36	0.14	0.00	0.00	0.15	0.53	19.24	5.43	30.95
1886	9.74	0.23	2.96	6.43	0.98	0.00	......	......	......	......	......	......	......
1887	2.17	7.59	1.60	......	......	......	......	......	0.33	0.00	1.40	4.40	......
1888	9.55	2.01	4.85	0.06	0.21	1.29	0.46	......	......	......	......	......	......
Means	6.71	4.95	4.34	3.21	0.92	0.22	0.05	0.01	0.46	1.29	3.68	6.03	31.87

UNION, CAMP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1863	......	......	......	......	......	......	......	......	......	......	0.00	......	......
1864	1.01	0.17	......	1.24	0.53	0.06	0.00	0.10	T	......	5.89	7.26	......
1865	4.00	0.92	0.32	1.10	0.42	0.00	T	0.00	......	......	......	......	......
Means	2.50	0.54	0.32	1.17	0.48	0.03	T	0.05	T	......	2.94	7.26	......

UNION RANCH, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1859	......	......	......	......	......	0.00	0.00	0.00	0.12	......	7.21	2.63	......
1860	......	......	......	3.08	3.00	0.08	0.80	0.00	0.00	......	......	......	......
Means	......	......	......	3.08	3.00	0.04	0.40	0.00	0.06	......	7.21	2.63	......

UPPER MATTOLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	5.27	17.88	......
1887	9.61	11.91	3.34	9.80	......	0.59	......	......	0.09	0.18	6.44	11.24	......
1888	41.63	4.13	8.96	1.51	0.48	4.19	0.11	T	......	1.06	4.86	......	......
1889	4.99	2.57	20.73	5.25	9.45	0.45	0.00	0.00	0.39	18.92	9.14	29.36	101.25
1890	33.40	20.36	17.83	4.38	0.40	0.74	......	......	......	......	......	......	......
Means	22.41	9.74	12.72	5.24	3.44	1.49	0.06	T	0.24	6.72	6.43	19.49	87.98

Monthly and annual precipitation at stations in California—Continued.

VACAVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869		3.59	3.35	2.08	0.34		0.05			2.57	2.44	4.43	
1870	2.92	3.24	1.62	0.84									
1880	3.48	2.28	2.73	8.26	7.58	1.78	0.00	0.00	0.00	0.00	0.07	21.25	47.43
1881	15.61	4.58	1.13	2.36	0.00	0.00	0.00	0.00	0.00	0.28	1.93	5.36	31.25
1882	2.76	3.38	4.17	2.37	0.19	0.00	0.00	0.00	1.10	3.11	3.77	1.15	22.00
1883	2.45	2.11	6.26	2.03	5.63	0.00	0.00	0.00	0.00	2.24	0.49	1.63	22.84
1884	6.02	7.19	11.45	7.48	0.24	0.00	0.00	0.00	0.41	1.20	0.00	16.18	50.17
1885	1.89	0.28	0.28	1.54	0.00	0.00	0.00	0.00	0.00	0.30	15.98	5.68	25.95
1886	8.74	0.17	1.32	4.84	0.05	0.00	0.00	0.00	0.00	0.27	0.14	2.26	17.79
1887	1.34	9.40	1.06	2.65	0.00	0.00	0.00	0.00	0.16	0.00	1.01	5.62	21.24
1888	6.34	0.45	4.21	0.08	0.04	0.11	0.00	0.00	0.71	0.00	5.77	5.35	23.06
1889	0.44	0.98	7.92	0.80	3.04	0.15	0.00	0.00	0.00	7.98	4.26	12.48	38.05
1890	11.74	5.49	5.74	0.96	1.63	0.00							
Means	5.31	3.32	3.94	2.79	1.56	0.19	0.00	0.00	0.24	1.63	3.26	7.40	29.64

VALLEY SPRINGS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887									0.00	0.00	0.72	3.51	
1888	5.32	0.49	1.74	1.94	0.23	0.00	0.00	0.00	0.47	0.00	2.44	2.29	14.92
1889	0.28	0.77	4.22	1.42	2.69	0.00	0.00	0.00	0.00	4.24	4.34	9.54	27.50
1890	6.91	3.73	5.51	2.12	2.44								
Means	4.17	1.66	3.82	1.83	1.79	0.00	0.00	0.00	0.16	1.41	3.50	5.11	22.45

VINA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888										0.00		5.16	
1889	0.09	0.29	6.95	1.19	1.94	0.50	0.00	0.00	0.00	7.24		12.16	
1890	6.05	3.58	4.26	0.00	2.11	0.00							
Means	3.07	1.94	5.60	0.60	2.02	0.25	0.00	0.00	0.00	3.62		8.66	

VISALIA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	0.14	2.76	0.55	1.40	0.30	[0.01]	0.60	T	[0.04]	0.86	0.75	0.30	[7.71]
1871	0.92	1.56					0.00						
1875	4.84	0.01	0.72	0.21									
1877							T	0.00	0.00	T	0.53	0.83	
1878	3.25	3.98	1.13	0.69	0.08	T	0.00	0.00	0.00	0.36	0.10	0.20	9.79
1879	0.70	0.30	0.53	1.23	0.47	0.06	0.00	0.00	0.00	0.92	1.03	2.16	7.40
1880	0.98	3.14	0.48	3.82	0.28	0.00	T	0.00	0.00	0.13	0.35	5.03	14.21
1881	2.71	1.10	1.20	0.86	0.29	0.00	T	0.03	0.09	0.31	0.52	0.27	7.38
1882	0.87	1.86	1.47	0.95	0.37	0.02	0.00	0.00	0.21	1.31	0.83	0.15	8.04
1883	0.06	0.54	2.48	1.79	0.82								
1884										0.36	0.00	4.63	
1885	0.42	0.00	1.17	1.10	0.07	0.00	T	0.00	0.00	0.11	4.84	1.63	9.14
1886	1.74	0.70	1.38	2.70	0.00								
Means	1.51	1.45	1.11	1.48	0.30	0.01	0.07	T	0.04	0.48	0.99	1.70	8.84

VOLCANO SPRINGS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888												0.14	
1889	0.82		0.67	0.00	0.00	0.00	0.00		0.00	0.13	0.40	2.74	
1890	0.09	0.68	0.00	0.03	0.00	0.00							
Means	0.46	0.68	0.34	0.02	0.00	0.00	0.00		0.00	0.13	0.40	1.44	

Monthly and annual precipitation at stations in California—Continued.

WALLA WALLA CREEK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	1.86	0.25	3.85	1.66	3.46	0.19	1.11	0.00	0.00	3.95	3.37	8.09	27.79
1890	11.56	9.10	4.93	1.24	1.29	0.28	......	......	......	......	......	......	....
Means	6.71	4.68	4.39	1.45	2.38	0.24	1.11	0.00	0.00	3.95	3.37	8.09	36.37

WALNUT CREEK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	0.00	4.94	0.24	1.30	[0.68]	0.00	0.00	0.00	0.33	0.00	[2.70]	3.33	[13.52]
1888	4.35	0.90	3.42	0.08	0.00	0.00	0.00	0.00	0.40	0.00	3.00	2.34	14.49
1889	0.00	0.30	5.80	0.75	1.60	0.05	0.00	0.00	0.00	4.75	2.40	9.94	25.59
1890	7.77	[2.05]	3.59	0.42	0.45	......	......	......	......	......	......	......	....
Means	3.03	2.05	4.26	0.64	0.68	0.02	0.00	0.00	0.24	1.58	2.70	5.20	20.40

WATSONVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	7.40	5.30	4.00	2.30	0.20	......	......	......	0.20	2.05	1.60	3.51	....
1870	3.00	3.59	2.01	1.21	1.06	......	0.00	......	......	0.30	1.90	......	....
1871	4.92	5.76	0.40	......	0.50	......	......	......	0.00	......	......	11.35	....
1872	4.07	4.30	......	......	......	......	......	......	......	......	......	......	....
Means	4.85	4.74	2.14	1.76	0.59	......	0.00	......	0.10	1.18	1.75	7.43	....

WEAVERVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	......	......	......	......	......	......	......	......	1.06	1.03	8.01	6.15	....
1870	10.11	9.64	2.05	1.06	0.22	0.00	0.00	0.00	0.64	1.39	6.41	9.43	30.95
1871	8.16	11.19	3.02	1.73	1.03	0.14	0.00	0.00	0.29	0.40	11.50	3.12	40.58
1872	17.62	15.09	3.11	2.43	0.81	0.17	0.00	0.25	0.35	0.78	3.78	6.32	50.74
1873	2.51	4.29	2.78	0.00	0.00	0.00	0.00	0.00	1.80	0.00	4.35	9.22	24.95
1874	10.39	4.41	3.12	3.58	2.67	0.70	0.00	0.00	0.00	1.57	10.30	1.32	38.06
1875	3.59	0.46	2.14	0.19	1.22	0.93	0.00	0.00	0.00	2.82	15.39	8.94	35.68
1876	3.69	7.42	8.23	2.79	1.63	0.15	0.47	0.00	0.67	7.38	1.56	0.29	34.28
1877	5.51	6.24	4.52	2.26	1.62	1.72	0.02	0.21	0.00	1.83	8.72	3.25	35.90
1878	19.83	16.20	8.53	2.11	0.00	0.00	0.02	0.03	1.28	1.80	3.58	1.41	54.79
1879	2.02	6.48	12.84	4.05	4.02	0.68	0.38	0.36	0.03	2.08	7.95	11.14	52.03
1880	3.14	1.09	1.22	8.28	1.46	0.23	0.00	0.00	0.00	0.55	0.00	14.73	30.70
1881	17.41	10.81	0.95	3.13	1.15	0.99	0.44	0.00	0.94	3.77	2.18	6.60	48.37
1882	4.59	4.40	1.12	2.44	1.29	1.16	0.08	1.38	0.00	8.36	0.78	4.30	29.90
1883	4.46	0.00	3.24	5.00	3.72	0.00	0.00	5.00	0.00	0.88	2.45	1.50	26.25
1884	4.53	0.00	5.10	6.29	1.60	2.93	0.13	0.00	0.83	1.50	0.88	13.84	37.63
1885	3.68	3.70	0.15	2.78	0.51	1.41	0.00	0.00	0.44	0.11	16.56	6.78	36.12
1886	8.71	0.80	2.94	......	......	......	......	......	......	......	......	......	....
Means	7.64	6.01	3.83	3.01	1.44	0.70	0.10	0.45	0.49	2.13	6.14	6.37	38.31

WEST BUTTE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	......	......	......	......	......	......	......	......	......	2.38	2.25	....
1880	0.62	0.75	0.75	5.88	0.62	0.00	0.00	0.00	0.00	0.00	0.00	5.38	14.00
1881	3.69	1.38	0.75	1.06	0.00	0.00	0.00	0.00	0.31	1.12	0.38	2.00	10.69
1882	1.88	2.31	2.57	1.19	0.50	0.00	0.00	0.00	0.25	0.88	2.62	0.25	12.45
1883	0.75	0.19	3.06	0.88	3.56	0.00	0.00	0.00	0.62	0.81	0.00	0.19	10.06
1884	3.81	2.12	6.50	3.75	0.25	1.75	0.00	0.00	0.57	1.00	0.00	4.94	24.69
1885	2.00	0.50	0.37	2.12	0.18	0.45	0.00	0.00	0.18	0.56	7.45	3.65	17.46
1886	4.75	0.70	1.50	4.19	0.12	0.00	0.00	0.00	0.00	0.50	0.44	0.67	12.87
1887	0.50	6.06	0.82	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.75	1.50	11.83
1888	3.55	1.12	2.67	0.30	0.36	0.30	0.00	0.00	0.75	0.00	3.25	6.00	18.30
1889	0.12	0.36	5.78	0.63	1.45	0.50	0.00	0.00	0.00	4.75	3.00	7.37	23.96
1890	5.45	2.59	......	......	......	......	......	......	......	......	......	......	....
Means	2.47	1.64	2.48	2.22	0.70	0.30	0.00	0.00	0.27	0.96	1.84	3.11	15.99

Monthly and annual precipitation at stations in California—Continued.

WESTLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	0.46	0.00	......	1.35	......
1889	......	0.33	2.60	0.41	0.88	T	0.00	0.00	0.00	2.65	1.92	4.92	......
1890	3.48	1.69	0.89	1.13	0.33	0.00	......	......	......	......	......	......	......
Means	3.48	1.01	1.74	0.77	0.60	T	0.00	0.00	0.23	1.32	1.92	3.14	14.21

WEST POINT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	......	12.92	1.23	6.55	0.16	T	0.00	0.05	0.85	0.00	1.35	7.79	......

WESTPORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	2.70	3.79	0.19	1.06	0.10	0.62	0.00	0.00	1.76	1.67	19.75	7.50	39.14
1886	5.79	1.35	3.81	7.77	2.53	0.00	0.10	T	0.00	3.09	0.99	7.38	32.81
1887	4.28	5.48	3.56	4.87	2.50	0.13	T	0.00	0.04	0.06	3.44	5.63	29.99
1888	16.61	2.04	4.83	0.73	0.79	5.61	0.22	T	0.40	0.22	......	......	......
Means	7.32	3.16	3.10	3.61	1.48	1.59	0.08	T	0.55	1.26	8.06	6.84	37.05

WHEATLAND, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	......	1.83	......
1887	0.94	5.37	1.33	2.15	0.10	0.57	0.00	T	0.06	0.00	0.50	2.01	13.03
1888	4.13	1.06	2.42	0.16	0.38	0.35	0.02	T	0.32	0.00	2.69	5.06	16.59
1889	0.12	0.37	5.52	0.80	1.98	0.32	0.00	T	0.00	6.41	3.16	7.51	26.19
1890	[1.73]	4.17	4.45	1.40	1.84	0.00	......	......	......	......	......	......	......
Means	1.73	2.74	3.43	1.13	1.08	0.31	0.01	T	0.13	2.14	2.12	4.10	18.92

WHITE WATER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	......	0.00	1.30	......
1878	1.40	0.98	0.45	2.35	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.46	5.82
1879	1.30	0.28	0.34	0.30	0.00	0.00	0.00	0.00	0.00	T	1.62	2.08	5.92
1880	0.51	0.42	0.20	0.12	T	0.00	0.00	0.25	0.00	0.15	0.34	1.70	3.69
1881	0.00	0.00	2.25	0.01	0.00	0.00	0.00	0.46	0.00	T	0.00	0.00	2.72
1882	[0.74]	0.48	0.20	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.00	[2.25]
1883	0.15	0.34	0.80	0.55	0.00	0.00	0.00	0.00	0.00	0.78	0.00	1.92	4.54
1884	1.10	6.96	3.05	0.00	0.00	0.00	......	......	......	......	......	......	......
Means	0.74	1.35	1.04	0.50	T	0.00	0.00	0.12	0.00	0.16	0.39	1.07	5.37

WHITTIER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	0.00	0.01	0.32	4.65	......
1889	0.15	0.28	3.65	0.15	0.93	0.00	0.00	0.95	0.00	3.21	1.39	0.00	10.71
1890	5.13	1.58	0.50	0.00	0.00	0.00	......	......	......	......	......	......	......
Means	2.64	0.93	2.08	0.08	0.46	0.00	0.00	0.95	0.00	1.61	0.86	2.32	11.93

WILLIAMS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	0.00	0.00	0.00	0.00	......
1877	2.16	1.15	0.33	0.05	0.25	T	T	0.00	0.00	0.82	0.93	0.82	6.51
1878	8.79	6.75	2.29	0.64	0.50	0.00	0.00	T	0.11	0.37	0.73	0.00	20.18
1879	1.80	1.43	2.37	1.48	0.85	0.13	0.00	0.06	0.00	0.13	2.31	2.81	13.37
1880	0.78	0.77	0.43	3.67	0.82	0.00	0.00	0.00	0.00	0.00	0.00	7.48	13.95

Monthly and annual precipitation at stations in California—Continued.

WILLIAMS, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	4.02	1.15	0.50	1.65	0.17	0.20	0.03	0.00	0.37	0.58	0.08	1.95	10.70
1882	1.32	1.37	1.21	1.15	0.05	0.17	0.00	0.00	0.20	1.13	2.43	0.33	9.36
1883	0.73	0.18	1.29	0.38	1.75	0.00	0.00	0.00	0.50	0.20	0.05	0.15	5.23
1884	3.01	1.33	3.93	1.96	T	2.96	0.00	0.00	0.33	0.45	0.00	4.27	18.24
1885	1.38	0.53	0.15	1.26	0.00	0.20	0.00	0.00	0.08	0.70	6.51	3.10	13.91
1886	3.83	0.00	0.89	3.01	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.95	9.28
1887	0.35	4.35	1.30	1.36	0.00	1.18	0.00	0.00	0.00	0.00	0.68	1.31	10.53
1888	2.22	0.70	1.72	0.00	0.67	0.08	0.04	0.00	0.50	0.00	4.10	2.67	12.70
1889	0.32	0.50	3.42	0.15	0.95	0.05	0.00	0.00	[0.16]	4.00	[1.37]	7.50	[18.42]
1890	3.20	2.90	3.30	0.65	1.77	0.00	......	......	......	......	......	......	......
Means	2.42	1.65	1.65	1.24	0.56	0.35	T	T	0.16	0.64	1.27	2.38	12.32

WILLOWS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	......	......	0.00	0.00	0.62	0.13	......
1879	1.68	0.83	1.16	1.35	0.56	0.08	0.02	0.05	0.00	0.05	3.07	4.55	13.40
1880	0.63	0.60	0.74	3.83	0.42	0.00	0.00	0.00	0.00	0.00	0.10	6.33	12.65
1881	3.75	1.12	0.56	1.64	0.17	[0.18]	0.00	0.00	0.44	0.47	0.10	2.23	[10.66]
1882	0.67	2.00	1.47	0.63	0.00	0.27	0.00	0.00	0.00	1.10	2.30	0.49	8.93
1883	0.43	0.23	1.40	0.86	1.64	0.00	0.00	0.00	0.41	1.30	0.15	0.05	6.47
1884	5.42	3.11	4.80	2.58	0.12	0.90	0.00	0.00	0.13	0.69	0.00	4.18	21.93
1885	1.19	0.24	0.05	0.94	0.20	[0.18]	0.00	0.00	0.30	0.30	7.28	3.37	[14.05]
1886	4.04	[1.36]	0.35	2.45	0.00	0.00	0.00	0.00	0.00	0.00	T	1.19	[9.39]
1887	0.17	2.77	1.16	2.78	0.00	0.00	0.00	0.00	0.00	0.00	0.95	2.17	10.00
1888	2.99	1.38	1.82	0.08	0.24	0.29	0.00	0.10	[0.13]	0.00	2.43	3.61	[13.07]
1889	0.54	0.66	1.58	0.27	0.71	0.30	0.00	0.00	0.00	6.83	2.30	8.52	[21.71]
1890	3.53	1.98	3.85	0.55	0.55	0.00	......	......	......	......	......	......	......
Means	2.09	1.36	1.58	1.50	0.38	0.18	0.00	0.01	0.11	0.90	1.61	3.07	12.79

WINTERS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	0.00	0.00	0.00	0.00	8.74	4.74	......
1886	5.95	......	1.77	3.90	0.16	0.00	0.00	......	......	......	......	......	......
1888	......	......	......	......	......	......	......	0.00	0.89	0.00	8.39	6.44	......
1889	0.36	0.50	8.40	0.58	1.92	0.15	0.00	0.00	0.00	5.95	4.58	12.74	35.18
1890	12.17	5.03	4.63	0.97	1.48	......	......	......	......	......	......	......	......
Means	6.16	2.76	3.93	1.82	1.19	0.08	0.00	0.00	0.30	1.98	7.24	7.97	34.43

WOODLAND, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	......	......	......	......	......	......	......	0.00	0.00	0.43	4.96	......
1873	1.25	2.84	0.56	0.18	0.00	0.00	0.00	0.00	0.00	0.20	1.15	10.44	16.62
1874	5.99	1.33	2.85	0.64	0.40	0.00	0.00	0.00	0.00	3.26	2.79	0.16	17.42
1875	5.22	0.35	0.66	0.00	0.15	1.59	0.00	0.00	0.00	0.44	3.87	2.49	14.77
1876	4.40	4.85	4.24	1.40	0.45	0.00	0.16	0.00	0.17	3.37	0.27	0.00	19.31
1877	3.95	1.42	0.77	0.03	0.53	0.00	0.00	0.00	0.00	0.94	1.10	1.29	10.03
1878	11.52	7.61	2.30	1.25	0.68	0.00	0.00	0.00	0.25	0.34	0.88	0.01	24.84
1879	2.62	3.25	4.48	2.40	1.70	0.00	0.00	0.00	0.00	0.22	7.15	3.66	25.48
1880	1.33	1.22	0.97	6.84	0.28	0.00	0.00	0.00	0.00	0.00	0.00	8.73	19.37
1881	4.50	1.93	0.97	1.39	0.00	0.35	0.00	0.00	0.50	0.25	1.87	2.37	14.13
1882	1.24	1.87	2.34	1.51	0.03	0.07	0.00	0.00	0.82	2.04	2.42	1.05	13.39
1883	0.91	0.60	3.24	1.22	4.65	0.00	0.00	0.00	0.54	1.04	0.30	0.54	13.04
1884	3.67	4.07	6.53	4.03	0.00	3.02	0.00	0.00	0.22	1.61	0.00	5.57	28.72
1885	1.62	0.15	0.15	1.50	0.00	0.00	0.00	0.00	0.06	0.05	9.14	2.73	15.40
1886	5.81	0.00	1.71	4.14	0.00	0.00	0.00	0.00	0.00	0.59	0.00	1.39	13.64
1887	0.88	7.56	0.75	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.60	3.67	15.36
1888	3.88	0.97	2.80	0.10	0.77	0.00	0.00	0.00	0.56	0.00	6.25	4.51	19.84
1889	0.19	0.49	6.14	0.84	2.01	0.43	0.00	0.00	0.00	5.54	3.54	8.16	27.34
1890	5.10	2.40	3.35	1.00	1.60	0.00	......	......	......	......	......	......	......
Means	3.56	2.38	2.49	1.69	0.74	0.30	0.01	0.00	0.17	1.10	2.32	3.43	18.19

Monthly and annual precipitation at stations in California—Continued.

WOODSIDE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	4.68	7.36	10.90	6.17	0.20	3.29	0.00	0.05	0.25	2.42	0.33	14.23	49.88
1885	2.74	0.26	0.83	0.23	0.17	0.08	0.00	0.00	0.07	0.12	11.46	4.71	20.67
1886	9.72	0.60	2.60	7.26	0.86	0.00	......	......	......	......	......	......	......
Means	5.71	2.74	4.78	4.55	0.41	1.12	0.00	0.02	0.16	1.27	5.90	9.47	36.13

WRIGHT, CAMP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864	......	......	......	......	......	......	0.00	T	0.03	......	10.10	12.20	......
1865	3.64	4.88	3.57	0.36	0.43	0.00	0.00	0.00	0.81	0.87	16.67	2.05	33.28
1866	15.83	4.30	11.80	1.05	......	......	......	......	0.00	0.00	5.92	24.67	......
1867	[8.92]	7.85	2.38	3.10	0.01	0.00	0.00	0.00	1.56	3.75	6.38	29.13	[63.08]
1868	8.61	5.89	9.11	3.33	0.71	1.58	0.00	0.00	0.05	0.25	2.79	6.63	38.95
1869	13.57	4.13	3.80	4.51	0.55	0.00	0.00	0.00	1.42	0.84	5.38	8.06	42.26
1870	7.03	6.61	2.40	2.02	0.39	0.00	0.00	0.00	0.00	0.00	1.28	1.19	20.92
1871	2.66	4.60	3.55	1.07	0.68	0.00	0.00	0.00	0.50	0.31	4.03	16.64	34.04
1872	11.52	19.78	5.34	0.66	0.12	0.04	0.00	0.20	0.00	0.36	5.20	7.24	50.46
1873	3.55	6.92	2.91	1.13	0.04	0.30	0.10	0.00	0.05	0.34	4.98	15.50	35.82
1874	12.94	5.46	7.26	3.72	1.16	0.26	0.01	0.00	0.00	5.61	12.39	2.27	51.08
1875	9.83	1.06	5.28	0.59	2.32	......	......	......	......	......	......	......	......
Means	8.92	6.50	5.22	1.96	0.64	0.24	0.01	0.02	0.40	1.23	6.83	11.42	43.39

WRIGHTS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Means*	7.91	4.48	2.60	11.32	0.00	0.00	0.00	0.00	0.00	1.32	8.45	4.74	40.82

* [Mean of 1 year and 5 months record.]

YĒRBA BUENA LIGHT-HOUSE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	[3.55]	3.11	5.85	1.25	1.20	0.06	0.00	0.00	0.00	0.52	2.02	2.31	[19.87]
1880	1.05	1.33	1.15	5.27	0.12	0.00	0.00	0.00	0.00	0.03	0.07	9.79	18.81
1881	6.09	3.04	0.51	1.28	0.10	0.39	0.00	0.00	0.18	0.45	1.82	2.24	16.02
1882	1.17	1.92	2.56	0.97	0.11	0.00	0.00	0.00	0.16	2.13	3.09	1.74	13.75
1883	1.19	0.59	2.33	1.13	2.54	0.00	0.00	0.00	0.55	1.00	0.77	0.66	10.76
1884	2.36	5.07	5.88	4.86	0.20	2.26	0.00	0.03	1.03	1.98	0.00	5.36	29.03
1885	2.01	0.24	0.92	2.43	0.00	0.00	0.00	0.00	0.00	0.30	7.05	2.34	15.29
1886	5.07	[2.61]	1.77	3.44	0.15	0.00	0.00	0.00	0.02	1.35	0.48	1.82	[16.71]
1887	0.81	6.89	0.50	1.60	0.00	0.00	0.00	0.00	0.22	0.00	0.60	2.23	12.85
1888	5.10	1.29	2.92	0.00	0.41	0.05	0.00	0.00	0.06	0.00	2.47	3.13	15.63
1889	[3.55]	0.80	9.08	0.00	1.30	0.00	0.00	0.00	0.00	7.73	2.85	13.04	[38.35]
1890	10.66	4.42	4.67	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	......	......
Means	3.55	2.61	3.18	1.97	0.51	0.23	0.00	T	0.18	1.29	1.77	4.06	19.35

YREKA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	0.33	1.24	1.98	2.61	......
1872	3.83	1.91	1.67	0.24	0.44	0.00	0.14	0.00	0.25	1.55	1.43	3.72	15.18
1873	1.28	1.77	0.40	0.90	0.60	0.00	0.00	0.00	0.44	0.55	1.17	2.20	9.31
1874	3.78	1.62	1.49	0.74	0.34	0.44	0.00	0.00	0.00	1.29	2.16	0.00	11.86
1875	4.35	0.19	1.23	0.17	0.51	0.30	0.07	0.00	0.00	3.34	5.29	6.07	21.52
1876	2.00	1.93	2.07	0.42	0.65	0.20	0.32	0.19	0.90	3.05	0.43	0.26	12.42
1877	1.20	3.24	1.48	0.74	1.56	0.65	0.18	0.00	0.00	0.20	3.64	0.95	13.84
1878	6.12	3.91	2.80	0.37	0.56	0.00	0.35	0.40	0.45	0.25	1.15	0.45	16.81
1879	1.53	1.41	3.96	1.56	1.42	0.39	0.22	0.15	0.00	0.77	2.32	7.23	20.96
1880	2.43	0.61	1.20	2.23	0.41	0.00	0.15	0.00	0.00	0.13	0.10	2.42	9.68
1881	11.78	2.58	0.19	1.48	0.00	1.65	0.59	0.26	0.30	3.24	0.68	1.60	24.35
1882	1.81	1.96	0.42	1.20	1.02	0.00	0.00	0.00	0.90	1.88	1.89	2.09	13.17
1883	1.38	0.47	0.53	1.26	1.76	0.00	0.33	0.25	0.33	1.35	0.66	2.95	11.27
1884	2.10	1.20	2.44	1.41	1.40	1.78	1.33	0.51	0.33	0.00	0.79	6.19	19.48
1885	1.16	2.94	0.00	1.12	3.65	1.66	0.58	0.00	0.49	0.29	6.98	2.10	20.97

***Monthly and annual precipitation at stations in California*—Continued.**

YREKA, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	4.03	0.91	0.74	1.78	1.05	0.00	1.51	0.15	0.00	1.69	0.30	4.14	16.30
1887	3.21	3.01	0.41	2.35	1.42	0.84	1.28	0.31	0.21	0.00	1.04	1.99	16.07
1888	4.90	1.19	1.16	0.11	1.12	2.39	0.24	0.00	0.87	0.34	1.13	0.00	13.45
1889	1.30	1.30	2.12	1.32	1.70	0.10	0.94	0.00	0.00	3.53	2.23	4.08	18.62
1890	3.59	8.89	3.09	......	......	......	......	......	......	......	......	......	......
Means	3.25	2.16	1.44	1.08	1.09	0.58	0.46	0.12	0.31	1.30	1.86	2.69	16.34

YUMA, FORT, CAL.

1851	0.00	0.01	0.00	0.27	......	......	......	......	......	......	......	......	......
1852	......	......	......	......	......	0.00	0.28	0.33	1.45	0.00	0.35	0.04	......
1853	0.00	0.00	0.01	0.00	0.00	0.00	0.25	0.69	0.13	0 00	0.18	0.52	1.78
1854	0.00	0.28	0.80	0.00	0.00	0.00	0.01	2.37	0.17	0.30	0.00	0.57	4.50
1855	0.12	1.26	0.00	0.00	0.00	0.00	0.10	0.00	[0.00]	0.22	0.10	0.00	[1.80]
1856	0.00	0.00	0.50	0.00	0.00	0.00	0.48	0.00	0.36	0.00	0.17	0.00	1.51
1857	0.00	0.30	0.00	0.00	0.00	0.00	[0 00]	0.00	0.00	0.00	0.00	0.00	[0.30]
1858	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	2.09
1859	0.00	2.07	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.42	1.83	0.00	4.82
1860	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.16	0.30	0.00	0.90	0.00	1.37
1861	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.01	2.00
1862	1.74	0.35	0.00	0.37	0.00	0.00	1.52	0.80	8.60	[0.09]	[0.30]	0.86	[14.63]
1866	......	......	0.00	0.20	......	......	......	......	0.20	......	0.04	0.04	......
1867	0.15	0.00	0.35	0.00	0.00	0.00	0.38	0.75	0.00	0.00	0.30	1.01	2.91
1868	0.37	0.26	[0.14]	0.15	[0.00]	0.00	1.62	1.29	2.35	0.00	1.75	0.50	[8.43]
1869	0.60	0.36	0.08	0.00	0.00	0.00	0.00	0.40	0.00	0.30	1.20	0.00	2.94
1870	0.00	0.25	0.50	0.00	0.00	0.00	0.60	1.15	0.00	0.60	0.00	0.00	3.10
1871	0.00	0.08	0.00	0.08	0.00	0.00	0.00	0.25	0.24	0.00	0.00	0.00	0.65
1872	0.00	0.24	0.00	0.00	0.00	0.05	0.00	2.38	0.06	0.00	0.00	0.00	2.73
1873	0.00	0.00	0.90	0.00	0.00	0.00	0.00	1.60	0.00	0.00	0.00	0.64	3.14
1874	0.55	0.85	0.20	0.00	0.00	0.00	1.40	2.40	0.50	0.25	0.90	0.50	7.55
1875	1.50	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.66	T	T	T	2.32
1876	0.30	0.35	T	0.00	0.00	0.00	T	0.20	T	T	T	0.00	0.85
1877	0.08	1.26	T	T	0.12	0.00	0.25	0.07	0.06	0.00	0.00	0.90	2.74
1878	0.02	0.23	0.21	0.14	0.00	T	0.55	1.59	0.00	0.00	T	0.12	2.86
1879	0.56	1.12	0.24	[0.07]	0.00	0.00	T	T	0.08	0.36	0.14	T	[2.57]
1880	T	T	T	0.00	0.00	0.00	T	0.00	T	0.00	0.00	0.74	0.74
1881	0.00	0.00	T	0.55	0.00	T	0.75	T	0.00	T	0.00	[0.29]	[1.59]
1882	1.53	0.00	0.00	T	......	......	......	T	......	T	0.36	......	......
1883	T	......	T	......	......	......	......	......	......	......	......	......	......
Means	0.31	0.39	0.14	0.07	0.00	0.00	0.33	0.66	0.58	0.09	0.30	0.29	3.16

Appendix No. 35.

MONTHLY AND ANNUAL PRECIPITATION AT FORTY STATIONS IN NEVADA.

The prefatory note to Appendix No. 34 with reference to interpolated values, applies also to the bracketed figures in the precipitation tables.

AUSTIN, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	0.63	0.60	0.09	......
1878	0.51	1.49	2.08	1.37	1.56	1.52	0.15	1.31	0.85	0.82	0.99	0.12	12.77
1879	2.13	0.58	0.43	1.45	0.46	1.15	0.02	T	T	0.85	0.85	1.88	9.80
1880	0.34	1.25	1.08	2.92	0.56	0.01	0.11	0.11	0.20	......	......	......	......
1888	......	0.30	......	0.25	......	T	0.09	......	1.00	......	0.60	......	......
1889	0.60	......	......	......	0.25	......	0.00	0.00	......	......	0.54	2.66	......
1890	3.64	1.82	2.98	1.26	1.48	0.05	0.30	1.16	0.45	......	......	......	......
Means	1.44	1.09	1.64	1.45	0.86	0.55	0.11	0.52	0.50	0.77	0.72	1.19	10.84

BATTLE MOUNTAIN, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[1.03]	[0.77]	[0.71]	0.05	0.30	0.77	0.00	0.00	0.00	0.30	0.59	0.13	[4.65]
1871	0.12	0.22	0.37	0.38	0.65	0.04	0.47	0.00	0.00	0.41	0.26	0.95	3.87
1872	0.00	0.20	0.43	1.00	1.19	1.00	0.50	0.00	1.31	0.01	0.02	0.83	6.49
1873	0.10	2.10	0.19	0.05	0.49	0.00	0.00	0.02	0.04	0.05	0.07	1.20	4.31
1874	0.95	1.56	1.07	0.21	0.40	0.00	0.25	0.80	0.00	1.38	0.65	0.15	7.42
1875	2.57	0.25	0 60	0.05	0.90	0.00	0.00	0.10	0.06	0.75	2.45	0.93	8.66
1876	0.40	0.30	1.05	0.75	0.24	0.27	0.53	0.00	0.60	0.53	1.21	0.12	6.00
1877	2.20	0.53	2.07	0.30	1.04	0.00	0.20	0.00	0.00	0.03	0.40	0.00	6.77
1878	0.29	1.02	0.44	0.64	2.17	1.24	0.00	0.90	0.15	0.31	0.23	0.00	7.39
1879	0.65	0.25	0.16	0.63	0.45	0.82	0.00	0.00	0.08	0.15	0.46	0.85	4.50
1880	0.08	0.90	[0.71]	0.59	0.35	0.00	T	0.00	0.00	0.00	T	2.07	[4.70]
1881	1.23	0.76	0.45	0.86	0.42	0.28	0.00	0.15	0.16	0.60	0.56	1.03	6.50
1882	1.58	0.70	2.10	1.27	0.55	0.83	0.08	0.00	1.33	1.08	0.15	0.30	9.97
1883	0.86	0.70	0.60	1.12	1.27	0.23	T	T	0.00	0.85	0.70	0.42	6.75
1884	0.70	2.30	1.04	1.54	1.29	2.18	0.00	0.10	1.12	1.94	0.00	1.82	14.03
1885	0.55	1.48	0.16	2.20	0.61	0.44	0.00	0.33	0.00	0.00	0.72	0.91	7.40
1886	1.30	0.10	0.27	1.72	0.24	0.21	0.38	0.00	0.18	1.20	1.50	0.44	7.54
1887	0.73	1.15	0.30	1.24	0.14	0.50	0.12	0.18	[0.10]	0.00	0.10	1.50	[6.06]
1888	3.12	0.30	0.25	0.35	1.50	0.51	0.22	0.00	0.65	0.18	0.82	1.89	9.79
1889	0.60	0.00	1.16	0.45	0.64	0.23	0.00	0.00	0.00	1.55	0.00	1.04	5.67
1890	2.55	0.50	0.81	0.95	......	0.00	0.00	0.90	0.00	......	......	......	......
Means	1.03	0.77	0.71	0.78	0.74	0.45	0.14	0.13	0.29	0.57	0.54	0.83	6.98

BEOWAWE, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[0.90]	[0.62]	0.57	0.11	0.24	0.72	0.00	0.01	0.00	0.07	0.22	0.33	[3.79]
1871	0.50	[0 62]	0.00	0.00	0.00	0.00	0.00	0.01	0.88	0.38	0.68	1.34	[4.41]
1872	0.14	0.24	0.45	1.82	1.50	0.00	0.00	T	1.30	0.12	0.25	0.41	6.23
1873	0.25	1.28	0.44	T	[0.63]	0.00	0.00	0.62	0.00	0.00	[0.69]	0.90	[4.81]
1874	0.00	0.90	0.90	[0.59]	[0.63]	0.00	T	0.97	0.00	1.54	0.84	[0.83]	[7.20]
1875	1.81	0.12	0.48	1.00	0.84	0.66	0.00	0.00	0.06	0.65	2.30	1.56	9.48
1876	0.22	0.60	0.71	0.44	0.22	0.17	1.61	0.00	0.63	1.30	0.47	0.38	6.75
1877	1.66	0.82	1.45	0.25	2.22	0.00	1.66	0.03	0.07	0.17	0.28	0.11	8.72
1878	1.02	0.84	1.08	0.84	1.54	0.78	0.04	0.30	0.51	0.15	0.00	0.04	7.14
1879	1.09	0.25	0.13	1.03	0.30	0.20	0.60	0.00	0.10	0.06	3.70	1.15	8.61
1880	0.05	1.31	0.65	0.75	0.27	0.00	0.00	0.00	0.00	0.00	0.10	2.20	5.33
1881	2.10	0.85	0.12	0.44	0.42	0.00	0.05	0.13	0.00	0.61	0.34	0.40	5.46

***Monthly and annual precipitation at stations in Nevada*—Continued.**

BEOWAWE, NEV.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	0.65	0.22	1.65	1.10	0.07	0.10	0.29	0.00	1.09	0.83	0.52	0.22	6.65
1883	0.76	0.60	0.32	0.99	0.38	0.00	0.00	0.00	0.00	1.14	0.60	0.82	5.61
1884	0.75	1.60	0.96	0.77	1.29	2.25	0.00	0.00	0.93	0.59	0.00	1.84	10.98
1885	0.50	0.40	0.00	0.82	0.23	1.55	0.00	0.39	0.00	0.00	1.41	0.92	6.22
1886	0.78	0.08	0.35	0.41	0.22	0.00	0.25	0.00	0.00	1.20	0.80	0.68	4.77
1887	0.20	1.20	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.20	2.17
1888	1.10	0.10	0.00	0.15	0.35	0.59	0.00	0.00	0.00	0.35	0.08	0.47	3.19
1889	0.90	0.00	0.18	0.20	0.11	0.05	0.00	T	0.00	1.06	0.05	1.88	4.43
1890	3.60	1.00	0.96	0.70	1.76	0.00	0.00	0.44	0.36	......	......	......	......
Means	0.90	0.62	0.54	0.59	0.63	0.34	0.22	0.12	0.28	0.51	0.69	0.83	6.27

BROWN'S, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	0.93	0.24	0.13	0.15	0.15	......	......	......	......	......	0.20	......
1871	0.51	0.60	[0.34]	1.36	0.00	0.00	0.10	0.00	0.00	0.40	0.41	2.01	[5.53]
1872	0.00	2.05	0.00	0.00	0.07	0.40	0.00	0.00	0.00	0.00	0.00	0.00	2.52
1873	0.00	1.93	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	1.05	3.31
1874	0.30	0.50	0.21	0.02	0.00	0.50	0.00	1.00	0.05	0.90	0.00	0.10	3.58
1875	3.22	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.20	4.12
1876	0.90	0.40	T	0.00	0.25	0.00	0.69	0.00	0.00	1.28	0.00	0.00	3.52
1877	1.20	T	0.40	0.50	0.70	T	T	0.00	T	0.25	0.53	0.10	3.68
1878	0.58	0.45	0.61	1.47	0.82	1.13	0.20	0.46	0.25	0.32	0.04	0.00	6.33
1879	0.68	0.10	0.07	0.98	0.35	0.41	0.00	0.02	0.00	0.25	0.45	1.15	4.66
1880	0.25	0.92	0.04	0.94	0.10	0.00	0.09	0.00	0.00	0.02	0.26	0.76	3.38
1881	1.51	0.47	0.13	0.13	0.00	0.01	0.00	0.00	0.04	0.00	0.00	0.45	2.74
1882	0.39	0.00	1.05	0.25	0.20	0.20	0.00	0.00	0.00	[0.16]	[0.30]	0.05	[2.60]
1883	0.50	0.05	2.00	0.14	[0.50]	0.01	0.00	0.01	0.07	0.75	0.27	0.08	[4.38]
1884	0.56	0.67	0.36	0.72	0.11	0.49	0.15	0.00	0.06	1.36	0.00	0.51	4.99
1885	0.52	0.03	0.10	1.43	0.05	1.06	0.00	0.00	0.00	0.00	1.39	0.55	5.13
1886	0.40	T	0.35	T	0.00	0.00	0.00	0.00	0.00	0.62	0.10	0.47	1.94
1887	T	1.29	0.25	0.50	1.10	0.20	0.00	0.15	0.25	0.00	0.00	[0.49]	[4.23]
1888	0.40	0.35	0.00	0.20	0.38	0.08	0.00	0.00	0.23	0.05	0.33	0.20	2.22
1889	0.71	0.00	0.30	0.00	0.00	0.04	0.00	0.00	0.00	0.42	0.15	1.38	3.00
1890	1.65	0.40	0.71	0.36	0.88	0.00	0.00	0.00	0.00	......	......	......	......
Means	0.72	0.54	0.34	0.43	0.29	0.22	0.06	0.09	0.05	0.36	0.24	0.49	3.83

CARLIN, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[1.27]	0.16	0.65	0.15	0.26	0.30	0.41	0.00	0.00	0.10	0.04	0.14	[3.48]
1871	0.05	0.80	0.29	0.00	1.30	0.00	0.00	0.00	0.32	0.31	0.60	2.17	5.84
1872	0.20	1.29	1.58	0.89	1.20	[0.32]	[0.22]	0.00	0.00	0.10	0.91	0.27	[6.98]
1873	0.29	2.95	0.00	0.02	0.02	0.00	T	0.38	0.14	T	0.01	2.32	6.13
1874	1.58	1.62	0.90	T	0.02	0.00	[0.22]	0.00	0.00	0.02	0.92	0.21	[5.49]
1875	2.30	0.18	0.50	0.00	0.21	0.35	0.00	0.35	0.00	1.62	2.69	2.64	10.84
1876	1.10	0.10	0.25	0.46	0.27	0.00	0.80	0.00	1.60	0.43	0.28	0.25	5.54
1877	2.21	0.45	1.97	0.59	1.27	0.00	1.37	0.00	0.49	0.13	0.15	0.05	8.68
1878	0.66	1.93	0.88	0.30	1.19	0.92	0.00	0.47	0.47	0.48	0.05	0.00	7.35
1879	1.91	0.34	0.20	0.49	0.27	0.16	0.00	0.00	0.10	0.00	0.72	2.21	6.40
1880	0.05	0.15	0.32	0.89	0.19	0.00	0.00	0.34	0.00	0.00	0.60	2.25	4.79
1881	1.56	1.25	0.24	0.99	0.72	0.00	0.70	0.62	0.10	0.48	0.22	0.95	7.83
1882	2.04	0.57	1.93	0.30	0.00	0.20	0.18	0.00	0.74	1.49	[0.58]	0.45	[8.48]
1883	1.20	0.96	0.63	1.10	0.00	0.00	0.00	0.58	0.00	1.17	0.10	1.85	7.59
1884	1.20	1.79	1.82	1.42	1.58	1.85	0.07	0.26	0.74	1.37	0.00	2.89	14.99
1885	0.83	0.98	0.00	1.06	0.60	0.83	0.00	0.25	0.60	0.17	2.17	0.95	8.44
1886	2.13	0.42	1.22	0.32	0.28	0.24	0.08	0.00	0.00	0.24	0.85	0.85	6.63
1887	0.61	2.00	0.14	1.62	0.08	0.13	0.35	0.01	0.10	0.00	0.20	0.70	5.94
1888	2.29	0.50	0.18	0.50	1.00	0.25	0.00	0.00	0.60	1.05	0.10	1.95	8.03
1889	0.90	0.00	1.35	0.23	1.05	1.15	0.00	0.50	0.10	1.62	0.40	3.45	10.75
1890	2.35	1.45	1.70	1.10	1.60	0.00	0.00	0.30	......	......	......	......	......
Means	1.27	0.93	0.80	0.59	0.62	0.32	0.22	0.19	0.30	0.54	0.58	1.33	7.69

CARSON CITY, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	6.78	0.20	0.18	0.12	0.10	0.63	0.00	0.00	0.00	0.28	7.01	2.43	17.73
1876	3.39	1.50	2.09	0.42	0.08	T	0.18	0.08	0.04	1.26	0.02	0.00	9.06
1877	3.37	0.08	0.33	0.53	......	......	......	......	......	......	......	......	......

***Monthly and annual precipitation at stations in Nevada*—Continued.**

CARSON CITY, NEV.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	......	0.25	......	......	......	......	......
1879	......	......	......	......	......	......	......	0.01	0.00	0.18	0.92	1.79	......
1880	1.00	1.31	1.08	5.02	0.04	0.06	0.13	T	0.00	T	0.42	4.04	13.10
1881	3.66	1.36	0.32	0.12	0.15	0.08	0.34	0.08	0.31	0.17	1.21	2.53	10.33
1882	1.16	1.03	4.22	0.51	0.29	0.59	0.18	T	0.40	1.61	0.96	0.34	11.29
1883	0.86	1.24	2.06	0.39	0.92	0.13	T	0.02	0.04	1.10	0.13	0.06	6.95
1884	2.46	2.77	3.23	1.29	0.29	1.97	0.00	0.62	0.22	0.22	0.00	4.75	17.82
1885	0.40	0.18	0.31	3.14	0.07	0.46	0.00	0.10	0.06	0.12	4.73	1.75	11.32
1886	5.57	0.28	1.60	0.25	0.26	0.05	1.25	0.00	0.30	0.21	0.44	0.72	10.93
1887	1.01	3.27	0.23	0.65	0.46	0.46	0.23	T	0.11	0.04	T	2.08	8.54
1888	1.54	0.22	0.54	0.20	1.05	0.08	0.27	0.02	0.59	T	2.00	0.61	7.12
1889	0.10	0.27	1.63	0.03	1.91	0.33	0.00	0.00	0.00	1.08	2.47	4.62	12.44
1890	5.29	2.39	1.12	0.15	0.43	T	0.00	1.13	1.01	0.03	......	......	......
Means	2.61	1.06	1.35	0.92	0.46	0.37	0.22	0.08	0.16	0.48	1.56	1.98	11.25

CEDAR PASS, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	0.30	0.20	0.20	0.00	0.00	......	......	......	......	......	......
1871	0.85	0.25	0.20	[0.98]	0.95	[0.03]	T	0.00	0.00	0.50	1.30	[2.84]	[7.90]
1872	T	0.40	0.10	0.30	[1.75]	[0.03]	0.00	0.01	0.21	0.15	0.88	9.04	[12.87]
1873	1.64	1.15	0.10	0.67	6.38	0.00	0.42	0.30	0.00	0.30	0.38	1.05	12.39
1874	0.97	1.45	2.23	0.65	0.50	0.05	2.80	0.20	0.00	0.60	2.10	0.30	11.85
1875	4.95	0.10	1.80	1.05	1.25	0.00	0.39	0.20	0.15	0.50	4.50	4.02	18.91
1876	1.35	1.35	1.60	2.04	0.95	0.15	1.86	0.25	1.00	3.51	0.57	2.18	16.81
1877	1.02	0.62	3.37	0.68	2.00	0.00	0.76	0.00	0.22	0.22	0.05	0.42	9.36
1878	0.68	2.00	0.98	2.28	......	......	......	......	......	......	......	......	......
Means	1.43	0.92	1.19	0.98	1.75	0.03	0.78	0.14	0.23	0.83	1.40	2.84	12.52

ELKO, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[0.85]	0.37	0.73	0.50	0.04	0.59	0.03	0.35	0.00	0.07	0.47	0.61	[4.61]
1871	0.37	0.59	0.75	0.43	0.64	0.67	0.41	0.00	0.53	T	0.40	0.43	5.22
1872	0.10	0.01	0.00	0.00	0.00	0.11	0.00	0.00	0.08	T	0.30	0.34	0.94
1873	0.22	2.40	0.00	T	0.50	0.00	0.00	0.00	0.00	0.15	T	1.60	4.87
1874	1.28	1.80	0.70	0.00	0.00	0.00	0.30	0.00	0.00	0.15	0.05	0.10	4.38
1875	0.90	0.00	0.20	0.00	0.03	0.00	0.00	0.00	0.00	0.83	2.01	0.32	4.29
1876	1.10	0.10	0.15	0.10	0.00	0.00	1.72	0.00	0.01	1.29	0.34	0.25	5.06
1877	1.62	0.10	1.23	0.12	1.40	0.00	0.50	0.00	0.20	0.10	0.08	0.10	5.45
1878	0.40	0.14	0.41	0.30	0.30	0.52	0.01	0.52	0.63	0.70	0.00	0.00	3.93
1879	2.21	0.09	0.00	0.10	0.00	0.51	0.00	0.00	0.21	0.02	1.10	1.71	5.95
1880	0.10	0.25	0.20	0.68	0.68	0.00	0.00	0.00	0.00	0.00	0.30	1.12	3.33
1881	0.81	1.21	0.70	0.20	0.80	0.00	0.01	0.36	0.00	0.36	0.30	0.69	5.44
1882	1.45	0.50	1.20	0.86	0.05	0.00	0.00	0.00	0.03	0.14	0.02	0.70	4.95
1883	0.02	0.05	0.07	0.13	0.01	0.00	0.00	0.01	0.01	0.07	0.30	0.72	1.39
1884	1.20	1.00	1.40	0.72	0.65	2.27	0.00	0.00	1.00	0.59	0.00	3.98	12.81
1885	0.40	0.95	0.00	0.21	0.75	0.25	0.00	0.27	0.28	0.05	1.80	2.33	7.29
1886	2.23	0.43	1.39	0.53	0.24	0.46	0.00	0.00	0.00	0.20	0.60	[1.04]	[7.12]
1887	0.02	1.60	0.00	0.70	0.00	0.23	0.40	0.10	0.15	0.00	0.20	0.98	4.38
1888	1.08	0.20	0.64	0.80	1.21	0.00	0.70	[0.00]	0.25	[0.38]	[0.46]	1.35	[7.07]
1889	0.55	0.02	2.05	0.10	1.46	0.50	0.00	0.20	0.03	2.52	0.51	2.42	10.36
1890	......	1.10	2.15	1.41	1.17	0.00	0.60	0.00	0.12	......	......	......	......
Means	0.85	0.62	0.67	0.38	0.47	0.29	0.20	0.09	0.17	0.38	0.46	1.04	5.62

ELY, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	[1.20]	1.46	2.08	0.69	0.37	0.16	1.13	0.47	0.92	[0.95]	0.90	[0.60]	[10.93]
1889	1.01	0.64	0.94	0.57	1.39	0.23	0.00	2.11	0.50	0.95	0.50	4.70	13.54
1890	1.39	[1.05]	0.90	0.90	0.70	0.00	T	1.26	0.18	......	......	......	......
Means	1.20	1.05	1.31	0.72	0.82	0.13	0.38	1.28	0.53	0.95	0.70	2.65	11.72

Monthly and annual precipitation at stations in Nevada—Continued.

EUREKA, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	0.30	......	......	2.66	......	......	......	......	......	......	......	......	......
1888	[1.34]	[1.00]	[2.04]	1.52	1.77	0.28	0.76	0.06	1.03	0.57	0.56	0.60	[11.53]
1889	0.86	0.03	1.46	0.23	1.58	0.53	0.01	0.54	T	1.47	0.19	2.39	9.29
1800	2.87	1.10	2.61	1.08	1.72	T	0.25	......	......	......	......	......	......
Means	1.34	0.71	2.04	1.37	1.69	0.27	0.34	0.30	0.52	1.02	0.38	1.50	11.48

DAYTON, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	0.40	0.10	0.21	1.13	[0.10]	[0.20]	[0.25]	0.61	0.00	1.69	0.32	......
1889	0.20	0.17	0.88	0.99	1.02	......	......	......	......	......	......	......	......
Means	0.20	0.28	0.49	0.60	1.08	......	......	......	0.61	0.00	1.69	0.32	[5.82]

FENELON, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	3.30	0.30	1.50	0.05	0.70	0.40	0.40	0.00	2.00	0.90	[0.70]	1.52	[11.77]
1889	0.62	0.15	0.68	0.30	2.35	0.10	0.00	0.30	0.05	1.39	0.30	3.75	9.99
1890	3.35	3.45	2.00	[0.50]	1.00	0.00	0.00	0.00	0.00	......	......	......	......
Means	2.42	1.30	1.39	0.28	1.35	0.17	0.13	0.10	0.68	1.14	0.50	2.64	12.10

GENOA, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	0.70	0.92	......	......	0.60	......	......	......	0.00	0.27	0.65	......
1889	0.76	0.00	4.45	[0.05]	1.25	0.07	0.00	0.00	0.00	2.92	5.45	7.85	[22.80]
1890	6.02	2.33	3.80	0.00	0.70	0.00	0.00	0.15	0.46	......	......	......	......
Means	3.39	1.01	3.06	0.02	0.98	0.22	0.00	0.08	0.23	1.46	2.86	4.25	17.56

FORT CHURCHILL, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	......	......	......	......	......	......	......	......	......	......	......	0.26	......
1861	0.07	0.02	......	......	0.32	0.07	0.00	......	0.00	......	0.01	0.04	......
1862	4.84	0.30	T	0.11	0.06	0.55	0.01	0.13	0.20	0.35	0.00	4.05	10.60
1863	0.04	0.01	0.02	......	......	0.12	0.18	0.00	0.01	......	......	0.00	......
1864	0.37	0.00	[0.26]	0.34	2.98	0.08	[0.04]	0.57	0.00	[0.12]	1.88	0.62	[7.26]
1865	0.58	0.55	0.01	0.01	0.00	0.00	T	T	[0.04]	0.00	[0.63]	[1.25]	[3.07]
1866	0.75	......	0.45	......	......	......	......	......	T	0.00	......	......	......
1867	0.40	......	0.50	......	......	0.00	T	......	......	......	0.62	3.55	......
1868	1.70	T	0.20	......	3.00	......	......	T	0.00	......	......	0.20	......
1869	0.10	1.50	0.61	0.10	1.00	......	......	......	......	......	......	......	......
Means	0.98	0.34	0.26	0.14	1.23	0.14	0.04	0.14	0.04	0.12	0.63	1.25	5.31

EL DORADO CAÑON, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	[0.64]	[0.28]	0.72	0.38	[0.01]	0.00	0.83	0.60	0.05	0.14	0.85	1.64	[6.14]
1889	0.80	T	0.54	0.03	0.02	T	2.32	0.04	0.48	0.80	0.24	5.77	11.04
1890	0.49	0.55	0.50	0.05	T	0.00	0.43	1.20	0.60	T	......	......	......
Means	0.64	0.28	0.59	0.15	0.01	T	1.19	0.61	0.38	0.47	0.54	3.70	8.56

FORT RUBY, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1863	T	......	......	......	0.68	......	......	0.00	0.80	......	1.86	1.53	......
1864	2.24	0.23	1.26	1.57	3.41	0.71	0.11	1.28	0.03	[1.43]	1.00	2.00	[15.27]
1865	[1.81]	0.83	*0.25	*0.02	0.00	0.47	1.08	2.37	1.47	3.33	0.00	*0.50	[12.13]

* Incomplete.

Monthly and annual precipitation at stations in Nevada—Continued.

FORT RUBY, NEV.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	*2.00	*0.75	*2.00	*1.00	......	......	......	......	0.00	*0.50	*0.75	*3.00	......
1867	3.00	......	......	......	......	......	......	......	......	......	*0.55	*0.30	......
1868	......	......	......	......	......	......	1.09	1.20	0.45	0.45	......	......	......
Means	1.81	0.60	1.17	0.86	1.36	0.59	0.76	1.21	0.55	1.43	0.83	1.47	12.64

* Incomplete.

GOLCONDA, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	1.22	1.87	0.00	0.26	0.49	0.12	0.12	0.00	......
1879	1.79	0.31	0.37	1.24	0.41	1.20	0.00	0.00	0.00	0.25	1.65	2.52	9.74
1880	0.15	0.95	[0.51]	1.16	0.74	0.00	0.02	0.00	0.00	0.00	0.10	2.91	[6.54]
1881	0.35	0.34	0.18	0.03	0.98	0.00	0.00	0.10	0.10	0.78	0.11	0.47	3.44
1882	0.20	0.63	1.35	0.40	0.16	0.72	0.06	0.00	1.04	1.34	1.07	0.25	7.22
1883	0.31	0.45	0.29	0.73	0.74	0.40	0.00	0.00	0.04	1.44	0.12	0.31	4.83
1884	0.59	0.78	1.81	1.91	1.51	[1.40]	0.00	0.10	0.57	0.44	0.00	1.12	[10.23]
1885	0.25	0.40	0.05	0.43	0.43	1.16	0.00	0.25	0.05	0.05	[0.90]	0.30	[4.27]
1886	0.65	0.02	0.50	0.88	0.00	0.52	0.42	0.00	0.00	0.91	0.21	0.25	4.36
1887	0.08	1.15	T	0.60	0.07	0.85	0.00	0.00	0.00	0.00	0.10	0.30	3.15
1888	0.70	0.10	0.00	0.95	1.25	0.45	[0.20]	0.00	0.05	0.65	0.25	1.05	[5.65]
1889	0.55	0.00	0.40	0.05	0.35	0.00	0.00	0.00	0.00	0.33	0.05	1.57	3.30
1890	1.90	0.42	0.66	0.10	2.42	0.00	0.00	0.00	0.25	......	......	......	......
Means	0.63	0.46	0.51	0.71	0.79	0.66	0.06	0.06	0.20	0.53	0.39	0.92	5.92

CAMP HALLECK, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1862	......	......	......	......	......	......	......	......	......	0.25	0.35	......	......
1863	......	......	......	......	......	......	......	......	......	......	......	0.42	......
1864	......	0.68	0.91	1.30	......	......	......	......	......	......	*2.40	......	......
1867	......	......	......	......	......	......	......	......	......	......	2.14	4.18	......
1868	2.51	1.50	3.44	1.10	3.51	2.07	0.55	0.02	0.81	0.53	0.45	1.12	17.61
1869	0.23	*0.82	1.80	0.43	0.40	0.14	0.14	0.97	0.48	[1.25]	[2.15]	7.62	[16.43]
1870	2.91	*0.25	0.26	0.13	0.42	[0.71]	0.00	0.00	0.00	T	1.06	0.29	[6.03]
1871	0.29	0.38	0.57	1.02	3.90	0.46	[0.52]	[0.18]	0.00	0.80	2.10	0.85	[11.07]
1872	0.02	2.70	0.06	1.50	1.60	0.04	0.20	0.00	......	......	......	......	......
1873	0.09	[1.29]	[2.00]	[1.18]	*1.40	0.00	0.20	0.00	0.00	*0.04	*0.15	*2.40	[8.75]
1874	[1.64]	[1.29]	[2.00]	0.05	0.25	1.08	0.54	0.00	0.00	2.62	3.13	1.24	[3.84]
1875	5.94	0.88	3.51	1.13	1.65	0.41	0.00	0.00	0.48	2.24	6.29	1.66	24.19
1876	2.68	2.37	8.82	0.40	3.26	0.25	1.65	0.00	0.03	1.53	[2.15]	2.32	[25.46]
1877	1.24	0.26	1.83	5.19	[1.62]	[0.71]	1.65	0.56	0.66	1.46	3.42	0.84	[19.44]
1878	0.91	3.52	2.07	1.27	......	......	......	......	......	......	......	0.41	......
1879	2.59	[1.29]	1.15	0.67	0.94	2.23	T	[0.18]	1.06	1.95	[2.15]	4.55	[18.76]
1880	0.00	1.58	0.54	......	......	......	......	......	......	......	......	......	......
1886	1.94	0.50	1.10	1.18	0.50	0.38	0.80	0.24	0.20	2.36	......	......	......
Means	1.64	1.29	2.00	1.18	1.62	0.71	0.52	0.18	0.34	1.25	2.15	2.15	15.03

* Incomplete.

HALLECK, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[0.97]	4.00	0.50	0.60	0.40	0.10	0.03	0.50	0.00	0.00	0.55	0.30	[7.95]
1871	0.23	1.20	0.20	0.00	0.10	0.50	0.20	0.62	0.00	0.41	0.80	3.14	7.40
1872	0.00	1.70	0.21	0.51	7.60	0.20	0.00	0.00	0.01	0.10	0.00	1.34	11.67
1873	0.36	2.50	0.00	0.32	0.25	0.00	0.00	0.01	T	0.05	0.01	2.02	5.52
1874	0.40	0.60	0.70	0.50	0.02	0.00	0.00	0.00	0.00	1.15	0.05	0.25	3.67
1875	1.50	0.00	T	0.00	0.45	[0.36]	0.00	0.00	T	0.60	2.00	[1.01]	[5.92]
1876	1.85	0.20	0.22	0.00	0.00	0.00	0.05	[0.14]	0.00	3.00	0.21	0.00	[5.67]
1877	2.55	0.05	1.70	0.05	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.60
1878	1.10	1.67	1.36	0.45	0.91	2.22	0.15	0.94	0.65	0.49	0.55	0.00	10.49
1879	2.62	0.71	0.63	1.18	0.17	1.52	0.00	0.00	0.30	0.61	2.35	3.75	13.84
1880	0.50	1.90	0.60	2.65	1.23	0.00	0.24	0.00	0.00	0.00	0.30	0.85	8.27
1881	0.38	1.16	0.45	1.16	0.00	0.00	0.00	0.00	0.00	0.65	0.30	0.60	4.70
1882	1.40	1.00	2.06	0.90	0.51	0.27	0.03	0.14	0.34	0.75	0.10	0.30	7.80
1883	0.68	1.20	0.72	0.91	0.81	0.00	[0.07]	0.06	T	0.53	0.65	0.85	[6.48]
1884	0.60	0.72	1.99	1.80	1.03	0.56	0.03	0.11	0.29	0.30	0.00	1.32	[8.78]

Monthly and annual precipitation at stations in Nevada—Continued.

HALLECK, NEV.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	0.05	0.59	0.04	1.04	1.55	0.31	0.00	0.00	[0.12]	0.00	1.64	1.07	[6.41]
1886	2.16	0.24	1.00	0.20	0.74	0.15	0.00	0.00	0.00	1.19	0.80	0.20	6.68
1887	0.30	1.85	0.00	0.18	0.12	0.00	0.25	0.10	0.40	0.00	0.60	0.90	4.70
1888	0.85	0.25	0.10	0.78	0.67	0.70	0.30	[0.00]	0.20	0.80	0.20	0.15	[5.00]
1889	0.90	0.30	0.75	0.27	1.80	0.53	0.00	0.00	0.00	1.40	0.47	2.10	8.52
1890	0.92	1.65	1.35	0.04	1.00	0.13	0.00	0.16	0.13	......	......	......	......
Means	0.97	1.12	0.69	0.64	0.93	0.36	0.07	0.13	0.12	0.60	0.58	1.01	7.22

HAWTHORN, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	0.00	0.14	0.00	0.18	0.69	0.89	0.00	0.10	0.00	0.05	0.00	0.52	2.57
1885	0.00	0.00	T	0.91	0.30	0.25	0.10	T	0.00	0.00	2.15	0.45	4.16
1886	0.00	0.00	0.85	0.40	0.00	0.00	T	0.00	0.00	0.00	0.00	[0.55]	[1.80]
1887	T	1.85	0.00	0.08	T	1.13	0.25	0.00	0.30	0.00	0.10	0.42	4.13
1888	2.38	0.26	0.30	[0.20]	1.20	[0.20]	0.00	T	0.00	0.00	0.87	0.35	[5.76]
1889	0.10	0.67	0.00	0.15	T	0.00	0.00	0.00	0.82	0.60	0.00	1.03	3.37
1890	1.31	0.45	0.07	0.00	0.17	0.00	T	1.03	0.46	......	......	......	......
Means	0.54	0.48	0.17	0.27	0.34	0.35	0.05	0.16	0.23	0.11	0.52	0.55	3.77

HAMILTON, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	0.05	0.01	1.02	1.17	1.69	......
1878	2.45	0.69	0.81	0.65	1.98	0.57	0.00	1.60	2.10	0.65	1.15	1.10	13.75
1879	4.00	1.45	0.20	2.00	0.13	0.40	0.50	1.50	0.00	2.70	4.20	8.30	25.38
1880	0.80	4.60	1.20	3.50	0.20	0.00	0.60	0.60	0.30	[0.50]	[1.10]	[1.80]	[15.20]
Means	2.42	2.25	0.74	2.05	0.77	0.32	0.37	0.94	0.60	1.22	1.90	3.22	16.80

HOT SPRINGS, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[0.80]	0.77	0.22	0.09	1.41	0.45	0.00	0.00	0.00	0.41	0.06	0.12	[4.33]
1871	0.17	0.23	0.00	0.31	0.26	0.70	0.46	0.00	0.00	0.00	0.45	2.92	5.50
1872	0.06	0.07	0.14	0.14	0.29	0.66	0.00	0.00	0.13	0.00	T	0.58	2.07
1873	0.00	1.50	T	T	[0.32]	0.00	T	0.25	0.00	0.00	0.00	0.46	[2.53]
1874	2.50	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	[0.17]	[0.35]	T	[3.32]
1875	4.15	0.05	0.10	0.50	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.05	7.10
1876	0.43	0.50	0.86	0.00	0.20	0.00	0.00	0.00	T	0.37	0.00	0.00	2.36
1877	0.95	0.00	0.05	0.83	0.30	0.00	0.00	0.00	0.00	0.05	0.36	0.10	2.64
1878	0.30	0.27	0.36	0.70	1.06	0.99	0.33	0.79	0.00	0.05	0.05	0.00	4.90
1879	0.28	0.00	0.00	2.50	0.28	0.05	0.00	0.03	0.00	0.00	0.40	1.27	4.81
1880	0.10	0.65	0.05	0.81	0.08	0.00	0.00	0.00	0.00	0.00	0.35	0.77	2.81
1881	0.88	0.15	0.25	0.43	0.12	0.00	0.20	0.02	0.08	0.08	0.00	0.70	2.91
1882	0.39	0.00	0.65	0.55	0.50	0.69	0.35	0.00	0.44	0.51	0.41	[0.47]	[4.96]
1883	0.20	0.10	0.45	0.10	1.00	0.00	0.20	0.00	0.00	0.84	0.00	0.03	2.92
1884	0.70	0.80	0.00	0.44	0.09	1.28	0.04	0.08	0.00	0.33	0.00	0.50	4.26
1885	0.40	0.00	0.00	0.40	0.45	0.00	0.00	T	0.00	0.00	1.54	0.22	3.01
1886	0.95	0.52	0.30	0.35	T	0.16	0.00	0.00	0.00	0.46	0.50	T	3.24
1887	0.12	1.80	0.00	0.09	0.00	0.12	T	0.09	0.00	0.00	0.00	0.15	2.19
1888	0.60	0.20	0.05	0.05	0.21	0.00	0.10	0.00	0.30	0.17	0.25	0.34	2.27
1889	[0.80]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	T	0.00	0.70	[1.50]
1890	2.10	0.55	0.05	0.04	0.07	0.00	0.00	......	......	......	......	......	......
Means	0.80	0.39	0.17	0.39	0.32	0.24	0.10	0.06	0.05	0.17	0.35	0.47	3.51

HUMBOLDT, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	2.31	1.08	0.57	2.00	......	......	......	......	0.60	0.00	2.00	......
1871	0.55	3.00	0.41	1.88	1.25	0.80	0.00	0.00	0.40	T	1.18	1.47	10.94
1872	[0.50]	0.85	T	T	1.44	0.05	0.00	0.00	0.00	0.10	0.60	1.27	[4.81]

Monthly and annual precipitation at stations in Nevada—Continued.

HUMBOLDT, NEV.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	0.00	3.25	0.15	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	1.06	5.04
1874	0.39	0.47	0.54	0.10	0.34	0.15	[0.02]	[0.07]	0.01	1.36	0.69	0.32	[4.46]
1875	1.12	0.10	0.36	0.02	0.21	0.25	0.00	0.00	T	0.60	1.62	0.34	4.62
1876	1.22	0.40	0.51	0.60	0.61	0.04	[0.02]	0.00	0.63	0.90	0.00	0.00	[4.93]
1877	1.10	0 00	0.67	0.75	0.92	0.20	0.00	0.00	0.00	0.00	0.88	0.00	4.52
1878	0.38	1.42	0.91	1.65	0.80	0.22	0.00	0.80	0.38	0.00	0.00	0.00	6.56
1879	0.97	0.00	0.05	2.07	0.73	1.16	0.00	0.00	0.00	0.40	0.65	1.09	7.12
1880	0.05	1.40	0.40	0.55	0.25	0.00	0.00	0.25	0.00	0.00	0.20	0.75	3.85
1881	2.26	0.76	0.30	0.85	0.00	0.15	0.00	0.00	0.15	0.18	0.18	2.30	7.13
1882	1.14	0.63	2.27	0.87	0.40	0.67	0.00	0.00	0.25	1.23	0.97	0.71	9.14
1883	0.00	0.82	1.98	0.35	0.64	0.22	0.00	0.00	0.13	2.13	0.44	0.37	7.08
1884	1.20	0.75	0.39	0.56	0.00	0.00	0.25	0.00	0.00	1.28	0.00	0.51	4.94
1885	0.60	0.10	0.00	2.21	0.38	1.90	0.03	0.02	0.00	0.00	0.64	0.35	6.23
1886	0.85	0.10	0.40	0.35	0.00	T	T	0.00	0.00	0.10	0.60	0.24	2.64
1887	0.00	1.25	0.00	0.00	0.00	1.30	0.00	0.20	0.00	0.00	0.00	0.50	3.25
1888	0.60	T	0.00	0.25	0.20	0.00	0.00	0.00	0.42	0.00	0.12	0.41	2.00
1889	0.10	0.00	0.50	0.22	0.90	0.25	0.00	0.00	0.00	0.57	0.10	1.57	4.21
1890	3.15	1.32	2.40	1.37	2.01	0.00	0.00	0.00	0.30	......	......	......	......
Means	0.81	0.90	0.63	0.72	0.65	0.37	0.02	0.07	0.12	0.47	0.44	0.76	5.96

IRON POINT, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[1.46]	2.00	0.70	0.00	0.82	0.80	0.60	0.50	0.05	0.25	0.05	0.25	[7.48]
1871	0.48	0.30	0.81	0.36	0.85	0.33	0.28	0.02	0.00	0.16	0.98	1.83	6.40
1872	0.47	2.45	0.75	1.18	0.99	0.60	0.00	0.05	0.69	0.40	1.20	1.72	10.50
1873	1.94	3.05	0.70	T	0.40	0.00	0.00	0.00	T	[0.52]	0.00	[0.73]	[7.34]
1874	2.12	0.07	[0.75]	0.60	0.27	0.80	0.00	0.00	0.00	0.76	0.70	0.02	[6.09]
1875	2.68	0.50	0.10	0.35	0.87	0.00	0.00	0.04	0.08	0.57	2.52	1.30	9.01
1876	0.77	0.34	0.71	1.05	0.08	0.10	0.54	0.00	0.21	1.40	0.19	0.00	5.39
1877	2.75	0.80	1.85	0.36	1.06	0.00	0.12	0.00	0.00	0.07	0.83	0.01	7.85
1878	0.43	1.56	0.37	0.60	......	......	......	......	......	......	......	......	......
Means	1.46	1.23	0.75	0.50	0.67	0.33	0.19	0.08	0.13	0.52	0.81	0.73	7.40

McDERMIT, CAMP, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	......	0.41	......	0.80	......	......	......	......	T	0.59	0.77	1.76	......
1867	3.54	0.87	0.48	0.22	0.29	0.16	......	......	......	......	......	......	......
1868	[2.17]	[1.47]	0.85	2.10	2.60	1.12	0.49	0.05	0.43	[1.01]	0.62	0.70	[13.61]
1869	0.61	1.16	1.95	0.14	1.58	0.84	0.05	0.03	0.02	[1.01]	0.59	0.78	[8.76]
1870	1.40	0.80	0.08	0.81	1.57	1.00	0.30	[0.00]	[0.00]	0.06	0.34	0.35	[6.71]
1871	1.69	0.60	1.20	1.30	0.77	0.10	0.37	[0.17]	T	0.54	0.76	2.68	[10.18]
1872	0.54	1.06	0.21	0.48	0.39	0.07	0.00	0.01	0.15	0.10	0.30	1.30	4.61
1873	0.69	2.99	0.28	0.40	2.73	0.00	0 23	0.28	0.42	0.66	0.74	[1.76]	[11.18]
1874	......	......	......	......	......	......	......	......	......	......	......	0.25	......
1875	3.12	0.60	3.26	0.00	0.25	0.46	0.00	T	0.00	0.19	3.73	0.75	12.36
1876	1.00	0.25	0.43	1.65	1.85	1.10	1.62	[0.17]	0.10	2.15	0.22	0.04	[10.58]
1877	1.26	0.22	2.80	0.20	1.74	0.42	0.04	T	0.04	0.30	1.34	0.48	8.84
1878	1.15	0.85	0.60	0.70	2.00	0.12	0.00	0.50	0.30	0.22	0.35	T	6.79
1879	0.91	0.55	1.30	0.85	0.70	1.58	T	T	T	0.05	1.22	2.65	9.84
1880	[0.34]	1.34	0.15	1.27	0.39	0.15	T	0.30	0.05	0.80	0.30	3.68	[8.77]
1881	1.43	1.52	0.18	0.16	0.36	0.03	0.00	0.00	T	1.18	0.76	0.32	5.94
1882	0.54	0.20	0.44	0.14	0.34	0.28	T	0.00	0.72	1.76	1.44	2.75	8.61
1883	5.36	1.04	5.86	*13.00	*12.28	0.24	T	1.36	0.24	6.66	1.06	1.22	48.32
1884	6.72	4.80	4.88	4.52	3.20	[2.00]	1.20	T	1.69	1.05	0.00	1.88	[31.94]
1885	0.62	0.89	0.26	0.88	0.76	2.50	T	0.16	0.38	0.12	1.82	0.94	9.33
1886	1.59	0.40	0.50	2.02	0.19	0.82	0.78	0.00	T	1.90	0.76	2.52	11.48
1887	0.52	7.10	T	2.06	1.46	2.32	0.04	0.18	0.22	0.00	0.68	10.54	25.12
1888	10.45	3.17	3.32	T	1.10	0.75	T	T	0.28	0.92	0.04	1.27	21.30
1889	0.15	......	1.04	0.78	1.27	......	......	......	......	......	......	......	......
Means	2.08	1.47	1.37	1.50	1.72	0.80	0.26	0.16	0.24	1.01	0.85	1.76	13.22

* Probably ten times greater than it should be.

Monthly and annual precipitation at stations in Nevada—Continued.

McGARRY, CAMP, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1865	......	......	......	......	......	......	......	......	......	......	2.47	2.60	......
1866	2.33	0.41	2.78	0.43	6.65	......	......	......	0.12	1.65	0.90	3.11	......
1867	2.60	......	......	0.30	0.80	0.56	0.00	0.22	2.15	0.83	3.02	3.79	......
1868	2.33	......	9.22	0.20	0.92	0.68	0.70	......	0.19	0.58	0.30	......	......
Means	2.42	0.41	6.00	0.31	2.79	0.62	0.35	0.22	0.82	1.02	1.67	3.17	19.80

MILL CITY, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	0.46	0.26	0.26	1.81	0.42	0.00	0.52	......	......	......	0.85	......
1889	0.00	0.00	0.49	0.60	1.38	[0.20]	0.00	0.00	0.00	0.60	0.08	4.53	[7.88]
1890	4.80	......	3.15	......	......	......	0.00	0.40	1.00	......	......	......	......
Means	2.40	0.23	1.30	0.43	1.60	0.31	0.00	0.31	0.50	0.60	0.08	2.69	10.45

OTEGO, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	0.70	0.74	0.40	......
1878	0.50	1.54	0.72	1.48	0.85	0.59	0.00	1.00	0.30	0.13	0.15	0.05	7.31
1879	1.18	0.56	0.18	0.85	0.00	0.50	0.00	0.26	0.10	0.00	1.00	1.70	6.33
1880	0.10	0.65	0.15	0.50	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.35	1.85
1881	0.50	2.35	1.42	0.35	0.55	0.00	0.34	0.41	0.12	0.90	0.50	1.12	8.36
1882	0.90	1.38	1.41	1.24	0.37	0.37	0.44	0.65	0.25	0.85	0.05	1.40	9.31
1883	1.00	0.40	0.15	2.22	0.25	0.00	0.00	0.14	0.04	0.62	1.70	0.72	7.24
1884	1.05	0.85	1.20	1.91	1.26	1.21	0.04	0.60	1.02	1.03	0.00	3.15	13.32
1885	1.45	1.82	0.00	1.83	2.20	......	......	......	......	......	......	......	......
1886	2.05	0.60	1.43	0.48	0.15	[0.38]	0.00	0.36	0.17	1.66	0.45	0.51	[8.24]
1887	1.07	1.70	0.35	1.37	0.02	......	1.10	0.00	......	......	......	......	......
Means	0.96	1.18	0.70	1.22	0.58	0.38	0.19	0.38	0.25	0.65	0.51	1.04	8.04

PALISADE, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	[0.70]	[0.97]	3.32	0.74	0.75	1.63	0.00	1.15	1.20	0.75	0.00	0.02	[11.23]
1879	2.43	0.98	0.76	1.75	0.10	1.04	0.00	0.00	0.10	0.05	0.35	1.83	9.39
1880	0.61	0.55	0.10	1.23	0.49	0.00	0.05	0.00	0.00	0.00	0.27	2.75	6.05
1881	2.59	1.76	1.48	0.62	1.06	0.00	0.85	0.67	0.13	0.94	[illegible]	1.65	12.25
1882	1.53	0.70	1.60	0.25	0.35	0.50	0.00	0.00	0.82	2.10	1.22	0.67	9.74
1883	1.20	0.40	0.00	0.99	0.15	0.15	0.00	0.10	0.00	0.47	0.47	[1.34]	[5.27]
1884	0.48	1.00	2.17	0.60	1.30	1.72	0.05	0.22	1.06	1.60	0.00	2.07	12.27
1885	1.00	1.78	0.00	1.09	0.89	1.06	0.00	0.25	0.20	0.10	1.88	0.60	8.85
1886	0.30	0.54	0.75	0.28	0.00	0.10	0.00	0.00	0.10	0.40	1.25	0.37	4.09
1887	0.45	2.12	0.00	T	T	0.10	0.00	0.00	0.50	0.00	0.10	0.90	4.17
1888	0.85	0.15	0.10	0.19	0.32	0.62	0.00	0.00	0.05	0.30	0.37	1.35	4.30
1889	0.80	0.00	0.70	0.37	1.20	0.23	0.00	0.00	0.05	2.41	0.36	2.50	8.62
1890	2.50	1.70	3.25	1.00	1.70	0.00	0.00	0.35	0.15	......	......	......	......
Means	1.19	0.97	1.09	0.70	0.64	0.55	0.07	0.21	0.34	0.76	0.56	1.34	8.42

PIOCHE, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	0.18	0.16	0.48	0.00	0.95	......
1878	0.46	1.67	0.73	1.31	1.27	0.04	0.29	0.97	0.22	0.35	0.63	0.42	8.36
1879	1.12	0.17	0.12	1.68	0.03	0.40	0.17	0.46	0.00	0.66	0.38	1.75	6.94
1880	0.21	0.36	0.12	0.46	0.01	0.03	0.18	0.47	0.18	0.52	0.29	1.84	4.67
1881	0.47	0.29	0.47	1.08	0.21	0.03	0.23	1.73	0.00	0.56	0.10	0.08	5.25
1882	0.38	0.55	0.30	0.98	0.29	3.23	0.21	0.95	0.03	0.60	0.71	0.08	8.31
1883	0.20	0.28	0.59	1.15	0.33	......		......	......	......	......	......	......
1888	[1.55]	3.15	2.40	0.19	1.56	T	0.33	3.68	0.05	0.16	[0.80]	2.85	[16.72]
1889	1.10	0.79	2.07	1.30	2.11	0.09	0.79	3.27	2.00	1.61	1.10	11.12	27.35
1890	3.52	1.30	0.80	2.20	1.00	0.25	1.15	2.45	1.70	0.88	......	......	......
Means	1.00	0.95	0.84	1.15	0.76	0.51	0.42	1.57	0.48	0.62	0.50	2.39	11.19

***Monthly and annual precipitation at stations in Nevada*—Continued.**

RENO, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	0.87	0.25	0.08	0.36	0.13	......	......	......	......	......	0.15	......
1871	0.77	1.10	0.00	0.30	0.00	0.10	0.00	T	0.00	0.00	0.10	2.49	4.86
1872	0.00	1.14	0.39	0.60	0.00	0.00	0.00	0.00	T	0.12	T	1.86	4.11
1873	0.55	1.10	0.00	0.05	0.05	0.00	0.00	0.00	T	0.00	0.25	0.75	2.75
1874	0.40	2.20	1.10	0.45	0.00	0.55	0.00	0.00	0.00	1.00	0.00	0.00	5.70
1875	2.70	0.02	0.05	0.20	0.00	0.12	0.00	0.00	0.00	0.00	2.67	0.30	6.06
1876	1.40	1.00	1.00	0.05	0.00	0.00	T	0.00	0.00	0.14	0.00	0.00	3.59
1877	4.40	0.00	0.03	0.52	0.19	0.02	0.00	0.00	0.00	0.02	0.50	0.00	5.68
1878	1.69	2.01	0.70	0.05	0.40	0.05	0.00	0.10	0.40	0.30	0.60	0.02	6.32
1879	1.35	0.00	0.20	0.83	0.14	0.10	0.00	0.00	0.00	0.00	0.30	1.10	4.02
1880	0.85	1.15	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	1.60	6.70
1881	1.50	0.60	1.90	0.02	0.02	0.00	0.10	0.00	0.00	0.00	0.95	0.80	5.89
1882	0.80	0.00	2.50	0.38	0.60	0.20	0.00	0.00	0.00	0.60	0.40	0.00	5.48
1883	0.80	0.80	0.15	0.00	0.40	0.00	0.20	0.00	0.00	1.00	0.60	0.00	3.95
1884	1.70	1.25	1.30	0.35	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.77	6.17
1885	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.60	2.95
1886	3.00	0.20	0.70	0.00	0.10	0.00	0.15	0.00	0.00	0.02	0.35	0.30	4.82
1887	0.60	2.90	0.00	0.18	0.40	0.10	0.00	0.00	0.00	0.00	0.00	1.60	5.78
1888	1.30	0.00	0.80	0.00	0.38	0.00	0.55	0.15	0.00	0.00	0.99	0.43	4.60
1889	0.30	0.25	0.95	0.00	[0.17]	0.00	0.00	0.00	0.00	0.75	1.10	2.91	[6.43]
1890	4.20	1.75	0.80	0.16	0.31	0.00	0.00	0.16	0.90	......	......	......	......
Means	1.42	0.87	0.61	0.38	0.17	0.10	0.05	0.01	0.02	0.21	0.55	0.78	5.17

TECOMA, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	0.00	0.00	0.00	0.05	0.05	0.35	......
1878	0.35	0.41	0.22	0.11	0.40	0.56	0.00	0.22	0.00	0.00	0.00	0.00	2.27
1879	0.30	0.00	0.08	0.35	0.00	0.08	0.00	0.00	0.08	0.00	0.40	0.70	1.99
1880	0.00	0.20	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	1.73
1881	0.15	0.72	0.60	0.00	0.10	0.00	0.22	0.15	0.00	0.57	0.00	0.10	2.61
1882	0.40	0.00	0.40	0.50	0.15	0.15	0.00	0.30	0.66	1.60	0.25	0.40	4.81
1883	0.20	0.15	0.33	1.00	0.30	0.00	0.05	0.15	0.00	1.50	0.37	0.06	4.11
1884	0.10	0.87	0.93	2.16	1.10	0.50	0.10	0.10	1.83	0.88	0.00	1.69	10.26
1885	0.55	0.30	0.00	0.98	0.80	0.50	0.00	0.20	0.20	0.00	1.10	0.40	5.03
1886	1.00	0.70	0.80	0.00	0.00	0.40	0.50	0.40	0.10	0.18	0.22	0.32	4.62
1887	1.00	0.88	0.40	0.40	0.00	0.10	0.65	0.15	0.40	0.00	0.02	0.50	4.50
1888	1.18	0.40	0.40	0.20	0.15	0.25	1.03	0.00	0.50	0.80	0.50	0.70	6.11
1889	0.45	0.00	0.60	1.00	0.70	0.50	0.00	0.00	0.30	1.10	0.40	[0.52]	[6.57]
1890	1.70	1.30	0.00	0.15	1.40	0.25	0.70	0.60	0 00	......	......	......	......
Means	0.57	0.46	0.37	0.56	0.39	0.25	0.23	0.16	0.29	0.51	0.25	0.52	4.56

TOANO, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[0.90]	0.15	0.37	0.22	0.90	0.40	0.05	[0.00]	0.00	0.30	T	0.87	[4.16]
1871	0.07	1.00	0.30	[0.72]	0.00	0.20	0.30	0.00	[0.00]	[0.44]	1.52	1.35	[5.90]
1872	0.00	0.00	1.70	1.20	[0.88]	[0.61]	0.00	0.25	0.00	0.00	0.20	5.62	[10.46]
1873	0.70	1.30	0.20	0.30	1.20	0.00	0.00	0.00	0.00	0.05	0.50	1.15	5.40
1874	0.56	1.20	1.15	0.22	0.08	0.30	[0.25]	0.48	0.45	0.31	0.58	0.48	[6.06]
1875	2.70	0.12	1.15	0.00	0.42	0.00	1.21	0.03	0.09	0.12	1.80	1.32	8.96
1876	2.40	0.60	1.15	0.41	0.70	0.14	1.60	0.07	0.05	0.46	0.40	0.20	8.18
1877	0.85	0.35	0.74	0.20	0.40	0.00	0.00	0.00	0.00	0.00	0.75	0.20	3.49
1878	0.50	0.78	0.32	1.03	0.67	0.55	0.10	0.80	0.15	0.15	0.10	0.20	5.35
1879	0.30	0.45	0.05	0.15	0.00	0.00	0.00	0.00	0.30	0.10	0.32	1.12	2.79
1880	0.00	1.10	T	1.50	0.20	0.00	0.15	0.01	0.00	0.00	0.20	1.18	4.34
1881	0.00	0.30	0.55	0.05	0.00	0.00	0.00	0.00	0.00	0.40	0.10	0.40	1.80
1882	0.65	0.50	0.50	0.22	0.50	0.10	0.00	0.25	0.00	0.98	0.55	0.30	4.55
1883	0.50	0.70	2.55	1.10	0.50	0.00	0.33	0.13	0.00	0.47	0.85	0.60	7.73
1884	0.70	0.78	0.78	1.88	1.60	0.55	0.00	0.13	1.20	1.25	0.00	2.20	11.07
1885	1.00	0.70	0.00	1.49	2.49	1.44	0.00	0.35	0.35	0.03	1.45	0.67	9.97
1886	1.16	0.40	1.45	0.36	2.28	7.50	0.11	0.55	0.35	0.78	1.35	0.38	16.67
1887	1.18	1.55	0.10	1.12	0.15	0.30	0.86	0.00	0.00	0.04	0.45	0.82	6.57
1888	1.95	0.40	1.02	0.75	0.84	0.19	0.10	[0.00]	0.65	1.75	0.70	1.42	[9.77]
1889	0.50	0.60	0.60	1.46	2.15	0.36	0.00	0.00	0.37	1.25	1.52	4.01	12.82
1890	2.35	1.86	1.50	0.71	2.44	0.25	......	......	......	......	......	......	......
Means	0.90	0.71	0.77	0.72	0.88	0.61	0.25	0.15	0.20	0.44	0.67	1.22	7.52

Monthly and annual precipitation at stations in Nevada—Continued.

VERDI, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	0.50	0.09	0.63	0.38	0.48	0.00	......	......	......	......	......
1889	0.05	0.40	2.98	0.14	3.30	0.01	0.00	0.00	0.00	1.53	3.43	6.03	17.87
1890	9.11	1.74	2.00	0.00	......	......	0.00	0.10	......	......	......	......	......
Means	4.58	1.07	1.83	0.08	1.96	0.20	0.16	0.03	0.00	1.53	3.43	6.03	20.90

WADSWORTH, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[0.74]	0.67	0.10	0.05	0.17	0.27	0.00	0.13	0.00	0.09	0.00	0.17	[2.30]
1871	0.20	0.25	0.00	0.40	0.40	0.47	0.25	T	0.00	0.09	0.27	1.80	4.04
1872	0.00	0.00	0.00	T	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.58	0.70
1873	0.01	1.38	0.09	T	T	0.00	0.07	0.01	0.02	0.00	0.00	0.35	1.84
1874	0.72	0.40	1.50	0.00	0.28	0.05	0.30	0.10	0.06	0.62	0.10	0.00	4.13
1875	2.61	0.44	0.00	0.20	0.09	0.00	0.09	0.00	0.00	0.00	0.51	0.20	3.96
1876	0.56	0.35	0.23	0.00	0.00	0.00	0.00	0.00	0.09	1.13	0.00	0.00	2.27
1877	2.00	0.00	0.01	1.18	0.60	0.00	0.00	0.00	0.00	0.02	0.36	0.10	4.27
1878	0.22	0.52	0.66	0.95	0.60	0.48	0.01	0.66	0.11	0.08	0.44	0.12	4.85
1879	0.20	0.00	0.00	1.69	0.00	0.00	0.00	0.00	0.05	0.00	0.22	1.72	3.88
1880	0.02	0.50	0.00	0.87	0.00	0.10	0.52	0.00	0.00	0.09	0.92	0.38	3.31
1881	1.08	0.47	0.20	0.55	0.10	0.00	0.63	0.10	0.00	0.68	0.10	1.10	5.01
1882	0.85	0.05	1.10	0.70	0.25	0.00	0.00	0.09	0.00	0.16	0.25	0.20	3.56
1883	0.20	0.55	0.35	0.18	0.67	0.00	0.00	[0.07]	0.00	0.30	0.25	0.25	[2.82]
1884	0.25	0.50	0.98	[0.42]	0.27	1.40	0.05	0.02	0.05	0.00	0.00	0.85	[4.79]
1885	0.40	0.03	0.05	0.81	0.09	0.54	0.00	0.08	0.05	0.00	1.13	0.49	3.59
1886	1.62	0.30	0.85	T	T	T	0.00	0.00	0.00	2.35	0.18	T	5.30
1887	0.28	2.52	0.09	0.18	0.69	0.52	1.28	0.10	0.15	0.00	0.09	0.98	6.70
1888	0.90	0.00	0.00	0.19	0.52	0.00	T	......	......	......	......	......	......
1889	......	......	......	......	0.29	0.24	0.00	0.00	0.00	0.20	[illegible]	1.16	......
1890	1.95	0.70	0.28	0.04	1.10	0.00	0.00	0.00	1.55	......	......	......	......
Means	0.74	0.48	0.32	0.42	0.28	0.20	0.16	0.07	0.03	0.30	0.28	0.55	3.83

WELLINGTON, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	0.15	1.79	0.26	0.81	0.27	[0.20]	[0.00]	1.66	0.60	......
1889	0.27	0.24	1.69	0.25	1.75	......	......	......	......	......	......	......	......
Means	......	......	......	0.20	1.77	......	......	......	......	......	......	......	[7.97]

WELLS, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[1.64]	0.67	0.67	0.62	0.46	0.22	0.00	0.00	0.00	1.65	1.65	1.13	[8.71]
1871	0.83	0.60	0.77	0.72	0.49	0.16	T	0.04	T	0.15	1.65	4.33	9.74
1872	T	0.45	0.60	1.00	3.45	[0.33]	T	T	1.45	T	1.75	1.55	[10.58]
1873	4.55	3.30	0.14	0.60	2.25	0.05	0.32	0.52	0.15	0.47	0.35	1.95	14.65
1874	2.50	3.90	3.70	0.87	0.94	0.80	0.79	0.27	0.21	0.69	1.59	1.00	17.26
1875	4.70	0.30	2.08	0.72	0.91	0.01	0.06	0.03	0.02	0.45	4.32	2.30	15.90
1876	4.45	1.00	2.60	0.23	0.61	0.02	0.82	0.01	0.21	1.14	0.75	0.55	12.39
1877	1.50	0.30	0.98	0.10	1.40	0.09	0.00	0.09	0.00	0.09	0.40	0.35	5.03
1878	0.40	1.00	0.87	0.38	0.00	[0.60]	0.00	0.40	0.07	0.17	0.10	0.10	[4.09]
1879	1.70	0.56	0.15	0.30	0.00	0.65	0.00	0.00	0.40	0.15	0.50	1.13	5.54
1880	0.10	0.20	0.15	1.20	0.45	0.00	0.60	0.00	0.00	0.00	0.00	1.25	3.95
1881	0.36	0.43	0.61	0.32	0.35	0.38	0.60	0.96	0.00	T	0.20	0.85	5.06
1882	2.55	0.98	2.65	1.85	0.58	0.25	0.00	0.48	0.28	2.34	0.68	1.10	13.74
1883	1.35	1.05	0.45	2.30	0.80	0.00	0.23	0.28	0.12	1.15	1.30	0.90	9.93
1884	0.70	0.70	1.17	1.14	1.48	1.57	0.00	0.17	0.48	2.89	0.09	1.80	12.01
1885	0.85	0.95	T	1.59	1.92	1.47	0.27	0.70	0.21	0.18	1.10	0.32	9.59
1886	1.07	0.11	0.39	0.47	0.30	0.20	0.40	0.20	0.00	0.50	0.59	3.25	7.39
1887	0.80	1.35	0.00	0.00	0.05	0.00	0.00	0.00	0.20	0.00	0.30	0.70	3.49
1888	1.75	0.10	0.00	0.00	[0.30]	[0.16]	0.00	[0.09]	0.50	0.65	0.30	0.72	[1.48]
1889	0.61	0.40	1.20	0.00	0.45	0.10	0.27	0.00	[0.23]	0.17	0.07	1.62	[5.12]
1890	2.10	1.41	0.61	0.05	1.32	0.05	0.09	0.20	0.09	......	......	......	......
Means	1.64	0.94	0.94	0.69	0.88	0.33	0.22	0.20	0.23	0.63	0.88	1.34	8.92

Monthly and annual precipitation at stations in Nevada—Continued.

WINFIELD SCOTT, CAMP, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	......	......	......	......	......	......	......	......	......	......	......	2.66	......
1867	2.26	0.54	0.50	0.29	[0.69]	0.26	0.00	0.38	1.52	[0.06]	1.97	6.17	[14.64]
1868	8.26	0.36	2.05	0.60	1.99	0.56	0.48	0.00	1.24	0.06	0.02	1.50	17.12
1869	1.65	1.88	2.08	0.32	1.55	1.25	0.11	0.35	0.32	[0.06]	[1.00]	[3.44]	[14.01]
1870	5.00	4.50	1.50	0.50	......	......	......	......	......	......	......	......	......
Means	4.29	1.82	1.53	0.43	1.41	0.69	0.20	0.24	1.03	0.06	1.00	3.44	16.14

WINNEMUCCA, NEV.*

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	0.27	0.00	0.00	0.02	0.79	0.00	......
1878	0.21	0.89	1.36	0.25	1.32	0.55	0.50	0.50	0.94	0.07	0.16	0.02	6.77
1879	1.83	0.21	0.56	1.52	0.32	1.27	0.01	0.04	0.01	0.56	1.03	1.97	9.36
1880	0.26	1.34	0.37	1.35	0.29	0.00	0.00	0.02	0.00	0.00	0.10	[1.39]	[5.12]
1881	3.08	1.59	0.87	1.04	1.02	0.62	0.00	0.07	0.12	1.37	0.32	1.81	11.91
1882	1.03	1.50	1.22	0.85	0.63	1.17	0.01	0.00	1.28	1.76	0.50	0.51	10.46
1883	0.65	0.17	0.97	1.15	1.89	......	......	......	......	......	......	......	......
1884	......	......	......	......	......	......	......	......	......	......	......	3.29	......
1885	0.79	1.41	0.20	1.00	1.02	2.41	0.00	0.01	0.08	0.07	3.78	1.00	11.80
1886	0.71	0.40	0.82	1.37	0.14	0.76	0.61	T	0.00	1.72	0.80	0.83	8.16
1887	0.51	1.55	0.40	1.94	0.36	1.14	0.09	0.13	0.35	T	0.03	1.55	8.05
1888	1.40	0.63	0.21	0.20	0.52	0.21	0.01	T	0.24	0.08	0.52	0.87	4.89
1889	0.32	T	0.47	0.14	0.60	0.11	T	T	0.00	0.61	0.10	3.40	5.75
1890	2.96	1.48	2.87	0.68	1.30	0.09	......	......	......	......	......	......	......
Means	1.15	0.93	0.86	0.96	0.78	0.75	0.14	0.07	0.27	0.57	0.74	1.39	8.61

* Signal Service records.

WINNEMUCCA, NEV. †

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	1.70	0.79	0.20	1.48	1.20	......	......	......	T	0.20	0.52	......
1871	2.15	0.60	0.59	0.76	0.02	0.20	0.20	0.10	0.09	0.40	1.12	0.55	6.69
1872	0.09	0.55	0.48	0.20	0.70	0.00	0.20	0.10	0.20	1.10	1.60	0.90	6.03
1873	0.60	2.04	0.00	0.30	0.70	0.09	0.00	0.09	0.00	[0.67]	0.19	2.07	[6.57]
1874	2.27	1.50	1.49	0.75	0.03	0.05	[0.13]	0.20	0.05	0.50	2.25	0.50	[9.76]
1875	2.26	0.26	0.95	0.36	0.62	1.09	0.09	T	0.18	0.56	2.56	0.82	9.58
1876	0.50	0.45	[0.99]	0.65	0.54	0.12	0.31	0.00	0.13	1.61	0.22	0.24	[5.76]
1877	2.30	0.69	1.14	0.35	1.45	0.00	0.27	0.00	0.00	0.02	0.33	0.00	6.47
1878	0.31	1.17	1.11	0.22	1.38	0.42	0.30	0.17	1.07	0.13	0.03	0.00	6.61
1879	2.12	0.12	0.48	1.52	0.05	0.50	0.00	0.00	0.09	0.22	0.95	2.09	8.05
1880	0.15	1.50	0.66	0.96	0.45	0.09	0.09	0.03	0.09	0.00	0.23	2.40	6.38
1881	2.83	1.35	0.80	0.99	0.85	0.62	0.09	0.10	0.12	0.98	0.25	1.80	10.75
1882	1.33	1.66	2.07	0.98	0.69	1.35	0.00	0.09	1.31	1.77	0.39	0.35	11.81
1883	0.44	0.49	0.83	1.24	1.67	0.03	0.00	0.05	0.35	1.27	1.68	0.44	8.40
1884	1.05	1.09	5.23	1.53	2.19	1.83	0.34	0.00	0.00	1.92	0.00	3.29	18.38
1885	0.65	0.95	0.29	1.02	1.19	2.37	0.00	0.01	0.03	0.07	3.78	1.00	11.37
1886	0.77	0.44	0.85	1.45	0.00	0.76	0.61	0.00	0.00	1.72	0.73	0.89	8.23
1887	0.62	1.71	0.40	1.62	0.44	1.05	0.09	0.13	0.32	0.00	0.00	1.55	7.94
1888	1.37	0.63	0.15	0.20	0.50	0.26	0.09	0.09	0.24	0.03	0.00	0.10	3.48
1889	0.72	0.09	0.61	0.17	0.55	0.10	0.09	0.00	0.00	0.49	0.10	3.83	6.57
1890	3.37	0.55	......	0.62	0.55	0.00	0.09	0.15	......	......	......	......	......
Means	1.29	0.91	0.99	0.77	0.71	0.57	0.13	0.06	0.21	0.67	0.83	1.17	8.31

† Records of Central Pacific Railway Company.

Appendix No. 36.

MEAN MONTHLY AND ANNUAL TEMPERATURE FOR TWO HUNDRED AND SEVENTY-ONE STATIONS IN CALIFORNIA.

The prefatory note to Appendix No. 34, with reference to interpolated values, applies also to the bracketed figures in the temperature tables.

ALCALDE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	85.0	86.4	83.3	68.2	56.1	49.1	....
1889	43.7	48.4	58.1	67.4	71.8	84.2	86.7	85.7	80.5	64.9	53.8	51.8	66.4
1890	44.0	48.6	......	62.0	71.9	75.1	......	......	......	......	......	......	....
Means	43.8	48.5	58.1	64.7	71.8	79.6	85.8	86.0	81.9	66.6	55.0	50.4	66.0

ALMADEN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	50.7	47.1	56.5	56.5	62.6	68.2	68.8	67.1	69.5	65.6	56.1	50.7	60.0
1888	46.6	54.2	54.5	61.2	62.3	68.6	70.6	72.5	69.4	64.2	56.6	54.7	61.3
1889	50.5	53.1	63.6	62.7	65.3	70.0	71.0	72.2	71.3	63.5	55.6	50.1	62.4
1890	45.2	48.8	54.3	56.1	63.3	63.7	......	......	......	......	......	......	....
Means	48.2	50.8	57.2	59.1	63.4	67.6	70.1	70.6	70.1	64.4	56.1	51.8	60.8

ALTA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	......	......	......	......	30.4	....
1871	40.5	39.6	......	48.8	......	......	77.3	67.0	77.1	59.0	40.9	48.5	....
1872	43.7	42.5	45.8	48.3	69.5	72.8	75.8	77.7	69.6	62.4	49.3	[42.8]	58.4
1873	45.3	36.4	47.3	50.5	60.7	68.4	82.5	75.6	70.2	54.2	49.2	38.9	56.6
1874	41.9	39.6	41.7	51.2	57.1	61.7	75.0	68.4	66.4	57.1	47.8	43.9	54.3
1875	39.0	40.5	43.4	62.1	65.4	68.5	80.0	76.7	71.7	69.1	49.6	49.2	59.6
1876	41.2	46.1	46.7	53.6	62.2	75.5	81.6	70.0	71.0	58.1	50.8	45.2	58.5
1877	43.4	45.5	52.9	51.4	57.9	72.7	76.5	73.1	67.3	52.6	45.7	41.6	57.0
1878	41.0	41.7	47.9	54.5	63.8	81.5	78.1	74.9	69.0	58.3	50.3	45.0	58.8
1879	38.9	47.6	49.2	53.0	54.1	71.0	74.0	75.3	69.2	55.6	45.9	39.4	56.1
1880	40.9	39.7	39.7	45.8	58.2	70.3	78.4	72.9	69.4	61.3	47.1	42.7	55.5
1881	44.5	45.0	46.6	57.2	62.0	65.5	73.9	71.1	65.2	51.8	47.1	44.1	56.2
1882	36.3	36.1	42.7	48.5	61.7	65.3	76.1	76.1	69.3	53.4	44.3	45.4	54.6
1883	39.1	40.6	52.4	48.7	44.0	73.3	78.4	71.2	70.4	50.5	47.2	44.4	55.0
1884	43.2	39.4	43.2	47.0	58.0	61.3	69.8	72.6	58.8	55.7	57.4	41.0	54.0
1885	42.6	47.7	54.4	49.8	63.0	62.3	......	......	......	......	......	......	....
Means	41.4	42.1	46.7	51.4	59.8	69.3	77.0	73.0	68.9	57.1	48.0	42.8	56.5

AMERICAN HILL, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	71.4	70.2	71.8	67.0	57.1	51.7	44.2	....

Mean monthly and annual temperature at stations in California—Continued.

ANAHEIM, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	60.7	62.6	58.4	......
1878	50.2	55.8	58.6	61.6	66.8	78.4	74.2	74.5	72.2	69.0	62.0	58.0	65.1
1879	53.1	56.9	62.8	65.4	69.4	72.4	74.0	76.1	72.6	67.9	58.4	53.8	65.2
1880	53.2	51.4	54.2	59.9	67.6	68.8	70.2	72.2	69.3	66.1	58.4	56.7	62.3
1881	53.9	58.7	58.2	64.6	65.2	58.9	74.4	74.8	72.4	64.1	59.5	56.2	63.5
1882	51.4	52.1	57.7	61.2	69.9	69.2	72.2	75.4	73.5	67.4	62.1	63.8	64.7
1883	60.5	60.9	66.2	63.2	67.0	75.8	74.3	75.9	77.7	67.3	62.0	51.8	66.9
1884	57.0	60.4	63.3	65.0	69.2	71.5	74.2	75.4	69.0	68.5	58.9	56.1	65.7
1885	54.9	59.3	68.0	68.3	68.0	72.6	73.9	75.9	72.8	66.8	62.7	58.9	66.8
1886	57.6	57.3	58.5	61.2	66.4	69.1	72.3	76.6	71.5	66.1	60.5	56.9	64.5
1887	54.0	53.3	58.9	61.0	63.4	65.8	72.3	71.2	71.7	70.6	61.4	53.8	63.1
1888	55.6	58.5	59.5	66.9	67.9	73.5	71.3	72.1	74.8	69.3	63.4	60.9	66.1
1889	57.8	61.3	58.8	65.5	67.8	69.4	73.0	77.9	76.2	65.4	61.8	59.0	66.2
1890	53.8	58.3	59.6	65.0	68.6	74.0	......	......	......	......	......	......	......
Means	54.8	57.2	60.3	63.8	67.6	70.7	73.0	74.8	72.8	66.9	61.1	57.3	65.0

ANDERSON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	[44.7]	51.8	53.7	59.6	64.5	78.7	83.5	80.0	73.0	58.5	49.0	48.8	[62.2]
1887	49.3	45.0	59.6	64.9	68.5	76.6	76.0	72.5	59.4	58.5	49.5	46.0	60.5
1888	43.5	51.4	52.6	63.6	69.0	68.8	83.5	84.0	81.0	63.0	52.9	49.9	63.6
1889	47.8	53.6	58.6	62.2	68.6	82.7	87.0	82.7	76.2	61.6	54.1	43.8	64.9
1890	38.2	46.2	48.0	......	......	......	......	......	......	......	......	......	......
Means	44.7	49.6	54.5	62.6	67.6	76.7	82.5	79.8	72.4	60.4	51.4	47.1	62.4

ANTIOCH, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	......	......	......	......	52.8	44.9	......
1879	45.2	53.4	59.9	65.3	67.8	80.2	77.5	80.6	74.5	64.3	52.8	46.3	64.0
1880	43.7	46.3	52.5	57.9	68.2	75.1	78.1	78.3	75.5	69.5	[52.2]	[48.0]	[62.1]
1881	51.8	53.0	52.8	61.7	70.0	71.2	76.3	75.9	74.9	64.2	46.0	47.8	62.1
1882	38.1	50.6	55.6	59.3	66.6	67.5	75.7	75.3	73.0	62.2	55.1	53.6	61.0
1883	48.9	[50.2]	58.0	56.9	64.2	76.8	72.7	71.8	73.1	58.0	47.4	40.7	[59.9]
1884	43.5	44.8	48.7	55.2	64.6	67.6	73.3	73.6	66.4	59.3	52.6	45.8	58.0
1885	43.9	53.2	58.2	62.1	68.9	68.4	74.5	75.7	73.7	67.0	52.0	[48.0]	[62.1]
1886	51.0	54.8	52.3	56.6	59.3	58.9	61.4	61.9	60.9	55.1	51.6	53.1	56.4
1887	49.8	47.1	59.0	62.3	68.2	73.6	74.8	73.6	73.3	68.4	57.0	49.2	63.0
1888	44.6	52.6	54.0	60.0	65.9	67.9	76.2	78.2	80.1	67.9	51.9	47.6	62.2
1889	43.6	48.6	54.9	60.4	67.4	73.9	77.1	[74.5]	[72.5]	62.8	54.6	50.5	[61.7]
1890	43.3	48.0	52.6	60.4	69.5	79.5	......	......	......	......	......	......	......
Means	45.6	50.2	54.9	59.8	66.7	71.7	74.3	74.5	72.5	63.5	52.2	48.0	61.2

APTOS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	......	......	......	......	62.4	60.3	60.2	53.4	51.8	49.9	......
1885	49.2	51.1	55.4	57.7	61.7	65.4	64.9	63.5	60.2	59.3	56.0	53.7	58.2
1886	51.0	54.8	52.3	56.6	59.3	58.9	61.4	61.9	60.9	55.1	51.6	53.1	56.4
1887	49.1	47.0	55.5	55.7	58.9	63.4	61.0	60.1	60.1	59.6	54.5	49.2	56.2
1888	46.0	51.9	53.0	58.4	59.7	67.9	65.9	63.2	61.8	59.1	53.9	54.1	57.9
1889	48.6	51.6	56.6	59.7	59.6	62.5	63.4	61.9	62.9	60.7	56.8	52.3	58.0
1890	46.2	49.0	53.6	......	61.0	61.9	......	......	......	......	......	......	......
Means	48.4	50.9	54.4	57.6	60.0	63.3	63.2	61.8	61.0	57.9	54.1	52.0	57.0

ATHLONE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	50.9	57.4	55.6	[65.2]	69.6	75.9	78.8	82.0	75.0	67.6	57.9	53.2	[65.8]
1887	50.5	45.8	58.9	62.1	71.4	78.7	83.2	79.4	75.3	67.1	54.9	45.5	64.4
1888	43.4	52.2	54.8	67.6	71.9	76.4	81.7	84.5	79.1	66.1	55.0	50.2	65.2
1889	45.9	50.9	61.0	67.1	72.6	72.7	83.3	82.6	77.9	65.9	56.5	52.1	65.7
1890	45.3	50.2	57.1	63.8	71.2	75.8	......	......	......	......	......	......	......
Means	47.2	51.3	57.5	65.2	71.3	75.9	81.8	82.1	76.8	66.7	56.1	50.2	65.2

Mean monthly and annual temperature at stations in California—Continued.

AUBURN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1859	......	......	......	......	......	......	......	?90.4	?81.5	?81.6	?61.0	?55.2	......
1860	......	......	......	65.7	60.4	......	......	......	......	......	......	......	......
1870	......	......	......	......	......	......	......	77.4	69.7	61.6	53.7	46.5	......
1871	47.2	45.4	52.0	58.8	61.0	74.5	77.9	79.2	77.4	64.8	50.9	48.0	61.4
1872	45.1	48.6	51.4	51.8	63.5	69.5	75.5	75.3	69.1	63.4	51.3	45.4	59.2
1873	48.5	42.3	53.7	54.6	63.1	70.5	80.2	75.2	74.9	61.1	56.8	43.8	60.4
1874	42.4	45.9	47.2	56.3	63.3	71.5	79.6	74.0	72.9	61.7	51.3	44.5	59.2
1875	46.4	49.9	40.4	63.0	67.2	72.5	80.5	77.5	73.2	69.7	53.3	46.8	63.4
1876	44.2	49.3	51.3	57.9	65.4	77.1	75.8	73.7	70.5	62.6	53.9	49.7	61.0
1877	49.4	53.5	57.4	57.6	61.5	74.5	78.6	75.2	71.9	60.7	52.4	47.8	61.7
1878	48.2	49.1	53.2	56.4	63.0	72.6	74.9	75.1	68.5	62.7	54.1	46.1	60.3
1879	43.0	52.0	53.9	57.2	57.9	69.8	73.9	77.1	70.6	60.4	50.6	43.5	59.2
1880	43.1	44.7	45.8	51.8	60.3	68.2	76.3	72.1	71.3	62.7	47.8	47.9	57.7
1881	46.0	50.1	53.4	59.4	64.3	66.8	73.5	71.4	70.8	56.0	48.2	44.4	58.7
1882	39.8	40.1	48.2	51.0	61.7	66.7	77.5	79.0	68.6	55.3	[52.5]	46.6	[56.8]
1883	38.1	48.4	53.3	50.6	59.0	73.5	78.2	75.2	72.0	55.7	50.0	45.0	58.2
1884	45.3	43.8	48.7	51.9	62.1	63.5	72.0	76.6	64.2	58.7	53.6	45.3	57.1
1885	44.6	51.3	56.3	56.9	64.6	66.3	73.8	78.1	72.3	64.5	52.5	46.8	60.7
1886	44.0	51.9	47.8	53.4	61.5	72.4	76.7	77.5	70.5	55.2	47.9	48.1	58.9
1887	44.9	39.8	54.5	55.4	63.1	71.3	76.0	72.5	71.0	67.1	53.4	44.8	59.5
1888	40.4	50.9	51.3	61.4	61.0	66.9	76.5	[76.4]	76.9	64.2	52.9	47.1	[60.5]
1889	44.6	49.7	55.6	59.3	63.8	80.1	76.5	76.4	71.9	61.7	54.4	47.0	61.8
1890	40.8	44.0	48.7	58.6	63.6	68.5	......	......	......	......	......	......	......
Means	45.3	47.5	51.2	56.6	62.4	70.8	76.5	76.4	71.9	62.4	52.5	46.7	60.0

BABBITT, CAMP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1863	......	......	......	......	......	......	......	......	......	......	46.4	47.6	......
1864	49.5	53.3	57.8	67.0	72.2	75.3	82.0	81.0	70.5	64.5	50.6	49.5	64.4
1865	47.1	47.8	53.9	61.9	76.4	......	......	......	......	64.5	54.9	......	......
Means	48.3	50.6	55.8	64.4	74.3	75.3	82.0	81.0	70.5	64.5	50.6	48.6	63.8

BAKERSFIELD, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	......	......	57.8	51.7	......
1889	46.0	52.6	63.0	70.0	78.7	88.3	88.6	86.5	79.3	67.0	57.3	53.6	69.2
1890	45.8	49.2	56.7	65.3	75.4	81.6	......	......	......	......	......	......	......
Means	45.9	50.9	59.8	67.6	77.0	85.0	88.6	86.5	79.3	67.0	57.6	52.6	68.2

BARSTOW, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	42.5	49.6	57.4	65.6	71.6	81.4	87.5	85.6	75.8	64.4	52.5	49.9	65.3
1890	......	47.6	55.2	63.2	71.0	75.6	......	......	......	......	......	......	......
Means	42.5	48.6	56.3	64.4	71.3	78.5	87.5	85.6	75.8	64.4	52.5	49.9	64.8

BEAUMONT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	41.5	51.3	48.2	62.0	62.7	69.9	77.4	79.7	78.5	65.8	55.9	53.7	62.2
1889	47.9	51.4	56.2	64.0	66.6	72.0	86.4	83.1	77.3	65.5	57.3	48.5	64.7
1890	38.1	47.7	52.8	59.8	64.3	......	......	......	......	......	......	......	......
Means	42.5	50.1	52.4	61.9	64.5	71.0	81.9	81.4	77.9	65.6	56.6	51.1	63.1

BELMONT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	69.5	62.4	57.1	49.8	......
1890	44.6	48.4	51.2	56.0	66.6	67.2	......	......	......	......	......	......	......
Means	44.6	48.4	51.2	56.0	66.6	67.2	......	......	69.5	62.4	57.1	49.8	......

Mean monthly and annual temperature at stations in California—Continued.

BENICIA BARRACKS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1849	......	......	......	......	......	......	......	......	......	......	46.2	48.0	......
1850	47.4	49.2	51.2	[57.9]	[61.5]	69.8	67.5	66.7	65.0	64.3	54.4	46.4	[58.4]
1851	49.5	50.1	55.4	60.1	61.8	65.2	65.7	70.1	64.1	65.9	56.9	49.0	59.5
1852	48.2	52.4	52.2	56.9	58.6	65.7	70.1	67.8	68.0	60.6	55.9	49.0	58.8
1853	48.6	49.8	52.9	56.1	60.6	68.7	65.1	64.0	64.4	64.5	56.3	46.6	58.1
1854	42.6	48.8	50.3	57.0	56.4	62.4	68.4	64.4	61.7	58.9	55.9	48.7	56.3
1855	45.8	52.2	56.4	56.9	58.3	70.7	[67.9]	66.7	65.9	67.5	54.2	46.6	[59.1]
1856	47.7	54.0	56.7	58.7	60.6	66.4	67.4	66.1	66.0	60.0	55.5	45.5	58.7
1857	49.4	49.2	57.1	60.8	61.6	68.4	70.0	67.7	71.0	66.3	55.6	49.4	60.5
1858	47.2	53.8	54.2	61.1	66.5	69.8	69.0	67.3	67.6	60.9	56.6	44.4	59.9
1859	45.0	49.5	49.9	54.8	58.6	68.1	63.8	63.8	64.4	63.8	54.5	47.2	57.0
1860	49.5	51.7	53.4	57.5	56.5	61.8	68.9	68.3	67.0	59.4	56.8	[48.4]	[58.3]
1861	48.4	52.7	56.6	60.0	62.4	65.7	68.7	66.7	66.0	62.1	55.0	50.7	59.6
1862	42.4	48.9	51.9	[57.9]	58.7	64.6	69.2	68.4	66.5	65.3	57.0	49.2	[58.3]
1863	48.5	48.2	55.3	55.8	61.8	65.4	68.6	65.5	67.5	64.5	55.1	50.0	58.8
1864	51.1	55.9	56.0	61.1	65.0	66.1	66.6	69.3	67.0	65.9	56.0	50.7	60.9
1865	47.7	49.4	......	57.4	65.6	67.3	67.6	64.7	......	......	56.1	......	......
1870	......	......	......	......	......	......	......	......	......	......	57.0	45.2	......
1871	[47.3]	48.6	54.7	59.1	61.7	68.9	67.0	68.0	67.9	66.4	55.3	49.0	[59.5]
1872	48.4	51.5	53.0	56.5	63.8	69.2	68.3	69.4	66.8	62.6	54.8	48.8	59.4
1873	51.9	47.7	55.6	58.9	65.2	69.3	71.4	69.4	67.7	64.3	59.3	48.3	60.8
1874	47.3	51.9	54.2	60.4	63.5	70.5	68.1	66.2	67.0	61.2	55.7	44.3	59.2
1875	45.6	51.3	53.8	62.6	67.4	65.8	65.4	65.8	65.6	66.4	56.8	49.9	59.7
1876	43.6	52.0	52.1	57.8	61.4	71.9	67.8	67.2	67.2	63.1	57.5	51.2	59.4
1877	52.6	57.4	59.6	58.2	60.9	70.8	69.1	67.3	70.3	61.8	54.8	50.1	61.1
1878	50.6	51.7	53.8	56.1	61.5	66.3	69.0	67.1	65.9	63.0	56.2	47.6	59.1
1879	46.8	55.7	56.6	58.1	57.4	68.5	66.9	70.1	66.6	63.0	51.2	45.0	58.8
1880	43.1	46.1	49.3	53.5	60.9	63.1	66.7	67.9	66.5	63.9	53.0	51.4	57.1
1881	51.4	54.6	54.3	60.6	62.8	65.9	70.1	67.8	68.5	57.9	54.7	47.1	59.6
1882	47.0	45.6	53.1	53.8	62.7	64.3	67.8	69.0	66.6	60.1	50.7	50.1	57.6
1883	43.6	46.9	55.1	54.2	60.4	68.8	66.7	67.4	70.3	59.2	52.5	46.0	57.6
1884	47.6	48.2	53.4	55.9	61.7	63.1	68.2	68.3	64.3	60.4	56.5	50.2	58.2
1885	47.2	54.3	57.7	58.8	62.5	63.0	66.4	67.2	68.9	63.3	56.0	50.6	59.7
1886	47.8	54.2	52.0	55.2	61.3	67.9	70.3	69.8	66.8	59.6	52.6	51.6	59.1
1887	49.7	45.0	56.1	57.4	60.8	65.9	61.8	65.1	67.6	66.6	55.4	49.1	58.6
1888	43.3	52.5	53.0	60.4	59.4	67.0	69.2	71.6	70.6	64.9	55.8	48.8	59.7
1889	45.6	51.5	56.5	59.0	61.5	66.7	67.9	70.0	70.2	61.4	54.9	47.8	59.4
1890	42.8	46.9	51.8	56.4	62.5	64.7	......	......	......	......	......	......	......
Means	47.3	50.8	54.1	57.9	61.5	66.9	67.9	67.5	67.0	62.9	55.1	48.4	58.9

BERENDA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	60.9	66.6	74.7	83.2	84.6	82.6	77.9	67.6	56.3	51.4	......
1890	43.4	49.1	54.7	62.2	71.9	76.2	......	......	......	......	......	......	......
Means	43.4	49.1	57.8	64.4	73.3	79.7	84.6	82.6	77.9	67.6	56.3	51.4	65.7

BERKELEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	58.6	51.4	......
1887	49.8	44.5	52.4	52.6	55.6	59.1	56.8	57.2	59.7	61.9	53.7	49.9	54.4
1888	45.0	51.3	50.2	55.7	55.5	62.1	61.7	60.0	61.0	59.1	55.1	51.8	55.7
1889	47.4	51.4	54.1	55.9	57.3	60.7	58.6	56.4	62.5	59.4	56.3	48.4	55.7
1890	40.6	46.1	50.7	52.5	57.7	58.8	......	......	......	......	......	......	......
Means	45.7	48.3	51.8	54.2	56.5	60.1	59.0	57.9	61.1	60.1	55.9	50.4	55.2

BERRYVALE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	......	......	......	......	......	......	......	......	43.2	37.1	33.4	......
1882	33.7	26.8	35.3	40.7	48.7	......	69.0	66.8	59.7	45.6	37.8	......	......
1883	......	33.7	49.6	......	......	......	......	......	......	......	......	......	......
Means	33.7	30.2	42.4	40.7	48.7	......	69.0	66.8	59.7	44.4	37.4	33.4	......

Mean monthly and annual temperature at stations in California—Continued.

BIDWELL, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1863	......	......	......	......	......	......	......	......	......	......	45.0	46.5	......
1864	46.5	51.0	54.7	57.0	......	......	......	......	......	......	......	......	......
1866	......	......	......	......	......	......	......	......	65.4	51.1	43.1	35.5	......
1867	32.4	31.4	26.6	48.0	59.3	68.6	75.6	75.9	62.4	49.3	37.3	32.7	50.0
1868	10.2	14.9	35.2	45.5	51.7	60.9	71.3	71.7	61.6	52.3	41.3	35.0	46.0
1869	31.2	30.8	41.2	49.6	60.4	71.0	73.1	70.8	61.0	50.2	43.0	31.4	51.1
1870	30.9	35.5	35.7	49.7	57.3	64.9	76.3	74.1	64.8	49.1	39.1	21.8	49.9
1871	31.3	34.1	37.3	45.2	54.3	70.6	73.4	73.4	62.0	49.6	35.8	35.4	50.2
1872	31.6	37.7	40.7	40.5	58.1	68.0	74.2	69.5	57.5	51.2	32.4	32.3	49.5
1873	35.6	28.2	41.6	44.0	51.9	61.4	75.2	70.9	62.0	45.1	40.2	25.2	48.7
1874	27.7	25.3	31.2	43.9	55.5	60.5	75.9	67.8	61.2	50.3	36.9	29.5	47.1
1875	26.9	28.6	33.6	50.7	55.2	63.1	74.7	72.3	65.0	59.2	38.4	37.3	50.4
1876	30.0	34.8	38.8	50.4	53.9	67.1	67.8	62.6	62.3	49.4	31.9	26.1	47.9
1877	26.6	37.6	43.2	47.1	51.8	60.5	71.6	69.3	61.1	51.9	44.7	33.6	49.9
1878	29.6	35.8	45.1	48.9	55.4	68.2	71.9	73.9	61.0	50.4	42.8	32.0	51.2
1879	30.0	42.1	46.0	50.4	49.2	62.5	71.8	73.8	65.7	54.2	41.7	32.7	51.7
1880	33.9	29.3	34.1	43.0	51.6	64.5	73.5	69.9	65.9	57.3	38.2	39.0	50.0
1881	37.8	42.1	44.5	55.9	61.8	65.4	72.6	72.0	64.7	48.3	41.0	37.8	53.7
1882	34.1	26.4	37.3	45.9	55.7	65.5	73.4	72.1	61.9	45.9	37.7	37.8	49.5
1883	28.4	28.8	49.4	44.7	54.5	66.7	73.8	71.2	65.6	47.8	42.0	38.0	50.9
1884	33.4	30.6	37.4	44.2	55.8	58.5	63.9	69.1	54.0	52.4	46.0	30.3	48.0
1885	33.0	40.0	46.6	51.4	[55.1]	[64.0]	69.1	72.1	56.7	52.5	38.6	35.4	[51.2]
1886	30.1	40.2	35.3	41.8	53.6	61.2	68.2	69.6	60.2	44.6	33.6	38.4	48.1
1887	33.5	24.5	43.6	43.5	53.8	57.7	67.9	65.7	59.2	51.0	39.6	31.3	47.6
1888	21.8	36.6	36.6	51.6	53.8	55.6	66.4	68.3	65.6	52.0	[39.6]	[33.4]	[48.5]
1889	25.8	35.7	45.1	51.4	55.7	68.3	72.1	71.0	60.7	50.3	38.9	27.8	50.2
1890	18.9	29.1	36.4	47.8	58.1	58.6	......	......	......	......	......	......	......
Means	30.0	33.2	39.9	47.7	55.1	64.0	71.9	70.7	62.0	50.6	39.6	33.4	49.8

BISHOP CREEK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	[38.6]	[47.2]	45.4	57.4	65.8	69.9	85.5	80.9	64.5	60.9	48.7	49.4	[59.5]
1885	42.4	50.0	59.1	63.7	75.0	77.2	89.0	86.2	76.4	65.3	48.6	44.1	64.8
1886	42.2	51.8	49.5	62.1	76.8	85.0	89.9	88.1	81.1	60.5	48.7	49.5	65.4
1887	44.7	41.5	62.5	63.9	72.1	82.6	87.6	82.0	67.2	64.9	50.0	44.3	63.6
1888	33.4	50.9	56.3	69.6	78.1	86.0	87.7	[85.0]	81.7	65.3	48.9	38.8	[65.1]
1889	37.3	47.3	55.9	68.2	76.1	88.8	93.2	87.6	76.7	[63.4]	[49.0]	40.6	[65.3]
1890	31.8	41.4	53.3	......	74.4	87.0	......	......	......	......	......	......	......
Means	38.6	47.2	54.6	64.2	74.0	82.4	88.8	85.0	74.6	63.4	49.0	44.4	63.8

BOCA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	63.4	56.8	......	36.1	21.8	......
1871	29.1	30.8	39.1	42.7	52.4	61.9	70.3	68.4	78.4	48.7	[35.4]	33.2	[49.2]
1872	32.1	37.7	39.5	41.1	56.9	67.4	65.7	67.7	52.5	48.5	35.4	32.2	48.1
1873	36.0	28.9	31.3	40.4	48.9	52.0	66.9	61.3	58.1	45.3	44.6	26.8	45.0
1874	23.3	23.8	29.2	42.5	48.4	57.5	68.7	60.4	54.8	47.5	40.4	33.3	44.2
1875	30.3	30.8	36.9	43.6	57.8	54.5	65.2	64.2	48.4	50.4	[35.4]	35.4	[46.1]
1876	19.4	25.3	32.6	38.2	48.2	63.2	63.0	60.9	57.6	50.8	37.2	21.0	43.1
1877	27.9	33.1	43.0	43.2	47.8	63.2	63.5	[62.1]	59.1	44.3	38.8	31.1	[46.4]
1878	30.8	30.3	35.5	42.7	47.6	58.0	58.9	62.7	54.4	44.5	39.2	28.1	44.4
1879	20.8	33.9	38.2	43.6	44.3	57.8	61.3	62.3	57.9	42.9	34.6	24.5	43.5
1880	18.8	18.3	24.0	38.2	45.7	56.3	63.9	58.5	52.8	44.4	31.2	31.4	40.3
1881	29.1	33.9	38.3	48.7	48.6	57.2	62.9	52.4	59.3	41.5	22.7	23.9	43.2
1882	31.5	18.1	25.7	34.4	47.3	56.4	64.2	60.6	55.1	58.2	31.6	31.3	42.9
1883	22.4	18.7	40.9	51.0	47.3	56.3	60.2	56.8	53.6	41.0	32.4	29.4	42.5
1884	22.6	18.7	30.0	37.4	49.0	56.2	60.7	64.6	51.1	46.0	35.8	31.6	42.0
1885	30.2	38.8	46.9	44.6	52.4	53.5	62.9	61.2	58.7	49.9	40.5	33.1	48.0
1886	30.0	38.1	36.6	46.5	52.5	57.5	62.7	62.7	54.8	45.0	28.4	34.1	45.7
1887	27.4	21.4	34.3	42.9	51.8	56.4	64.9	63.5	55.9	49.6	33.5	22.4	43.7
1888	15.8	27.6	33.4	42.5	53.4	58.4	67.9	63.6	60.4	43.5	33.5	31.2	44.3
1889	[26.1]	31.3	33.6	48.2	48.6	63.9	63.9	61.9	[56.8]	43.5	41.7	28.8	[45.7]
1890	19.2	27.2	33.4	......	52.5	......	......	......	......	......	......	......	......
Means	26.1	28.3	35.1	42.8	50.1	58.3	64.1	62.1	56.8	46.6	35.4	29.2	44.6

***Mean monthly and annual temperature at stations in California*—Continued.**

BORDEN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875					76.1	80.3	89.2	86.8	82.6	76.8	59.0	47.4	
1876	43.0	48.9	50.8	60.6	67.9	83.9	85.5	83.6	79.9	70.5	51.4	43.5	64.1
1877	48.7	56.8	63.3	62.8	67.4	77.5	86.9	84.5	80.0	65.5	53.8	48.4	66.3
1878	47.9	50.1	54.7	57.6	66.8	74.5	80.5	83.4	76.4	69.6	57.0	46.7	63.8
1879	45.2	55.0	59.8	64.6	65.7	78.4	82.1	85.2	79.4	69.8	53.6	47.4	65.5
1880	43.8	47.8	49.4	53.4	66.8	76.1	83.4	84.7	72.7	64.5	45.9	49.1	61.5
1881	48.3	54.8	54.7	64.7	69.9	73.1	79.8	81.6	76.1	65.7	54.6	51.0	64.5
1882	45.6	45.8	54.8	56.5	68.9	75.7	85.9	86.2	79.4	65.4	52.7	47.3	63.7
1883	42.5	51.5	54.7	58.3	71.0	81.3	88.7	89.0	85.5	64.4	56.8	50.2	66.2
1884	49.2	52.0	59.8	60.1	68.8	69.5	77.6	86.6	69.6	58.2	58.4	50.6	63.4
1885	45.6	53.1	59.0	59.0	68.1	74.1	86.4	88.8	79.6	75.9	54.6	49.3	66.1
1886	45.9	52.4	52.9	60.1	73.6	81.8	85.7	86.4	77.1	60.8	48.5	46.5	64.3
1887	47.2	46.9	59.0	61.8	72.9	79.2	81.4	79.2	76.5	68.3	55.3	46.6	64.5
1888	43.8	51.7	54.7	69.5	70.5	75.4	82.5	86.8				48.9	
1889	45.1	49.4	58.0	63.7	69.3	80.0	82.6	81.6	74.8	62.8	56.0	50.9	64.5
1890	42.4	47.1	56.7	62.2	69.3	76.3							
Means	45.6	50.9	56.2	61.0	69.6	77.3	83.9	85.0	77.8	67.0	54.1	48.3	64.7

BOULDER CREEK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888									66.8	58.6	51.8	51.7	
1889	44.7	46.7	50.5	60.8	61.0	67.5	69.4	67.8	65.7	54.2	50.2	50.1	57.4
1890	43.7	46.0	53.7	58.3	64.0	63.7							
Means	44.2	46.4	52.1	59.6	62.5	65.6	69.4	67.8	66.2	56.4	51.0	50.9	57.7

BRAGG, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860												49.6	
1861	48.8	48.6	49.3	51.6	51.7	55.8	58.0	55.8	[57.8]	52.2	[49.6]	[49.3]	[52.4]
1862	45.5	44.4	48.0	46.6	52.9	57.2	[59.6]	58.2	57.5	55.5	49.0	48.3	[51.9]
1863	46.8	46.3	48.7	51.4	56.4	60.9	61.2	60.6	58.3	54.6	50.1	49.9	53.8
1864	49.6	49.3	50.5	51.1	56.4			54.8	57.6				
1871						59.3	59.3	69.8	63.0	62.6	59.0	58.2	
1872	54.5	56.8	56.8	56.8									
Means	49.0	49.1	50.7	51.5	54.4	58.3	59.5	57.8	58.8	56.2	51.9	51.1	54.0

BRENTWOOD, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879										68.3	54.2	46.6	
1880	41.5	45.1	53.4	54.3	65.1	73.9	77.8	76.8	74.8	67.7	52.0	47.8	60.8
1881	49.9	53.9	54.6	59.6	65.3	70.5	77.6	73.2	71.2	58.1	52.1	48.2	61.2
1882	42.5	48.2	54.4	55.5	62.3	64.6	73.9	73.8	71.5	61.2	49.3	48.6	58.8
1883	42.0	44.3	54.5	55.1	61.3	76.4	79.6	75.6	75.8	61.8	53.6	43.7	60.3
1884	45.5	46.4	53.6	54.4	64.0	66.7	76.3	76.9	67.5	65.5	54.6	48.0	60.0
1885	47.2	56.5	61.7	62.7	70.7	73.2	77.6	77.5	75.7	69.1	60.8	[47.9]	[65.0]
1886	49.8	59.3	59.7	63.6	71.2	80.1	82.4	80.9	69.3	62.8	52.6	[47.9]	[65.0]
1887	49.2	46.7	60.8	64.3	67.8	77.9	80.3	79.6	75.9	63.5	52.8	47.2	63.8
1888	42.2	51.3	57.8	67.6	75.6	77.8	84.7	[77.1]	77.1	71.1	49.8	49.9	[65.2]
1889	45.3	52.9	62.8	67.2	72.3	77.5	79.6	79.5	72.6	68.3	60.6	51.2	65.8
1890	48.6	53.7	61.9	70.1	69.8								
Means	45.8	50.8	57.7	61.3	67.8	73.9	79.0	77.1	73.1	65.2	53.9	47.9	62.8

BRIGHTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877							77.9	74.2	72.4	61.6	52.6	46.8	
1878	47.9	50.8	55.9	59.1	67.3	76.5	77.3	77.1	69.9	60.4	52.9	44.8	61.7
1879	44.1	53.6	56.6	60.6	62.1	72.9	78.5	80.1	74.4	51.4	49.2	44.3	60.6
1880	39.1	45.6	49.4	57.4	64.6	74.4	75.7	74.5	69.7	66.1	51.2	50.1	59.8
1881	49.9	53.7	55.1	52.3	67.8	69.4	75.1	72.5	70.8	58.4	49.9	46.7	60.1

***Mean monthly and annual temperature at stations in California*—Continued.**

BRIGHTON, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	44.3	45.1	53.5	56.6	66.4	70.1	76.8	75.8	71.3	61.0	50.4	49.0	60.0
1883	43.7	46.5	58.4	57.6	63.6	76.1	76.9	74.6	74.2	60.4	51.5	45.8	60.8
1884	47.2	48.4	54.0	57.8	66.9	68.3	72.9	76.4	66.7	60.3	55.7	48.5	60.3
1885	47.2	53.8	61.1	62.7	69.4	70.1	74.5	78.1	78.2	69.8	60.7	55.3	65.1
1886	49.3	56.3	55.9	61.4	67.2	77.7	81.4	81.4	74.9	65.5	52.6	53.8	64.8
1887	50.9	47.6	59.5	62.3	68.8	77.9	80.3	79.6	75.9	63.5	52.8	47.2	63.9
1888	45.4	54.5	55.3	66.9	69.1	74.6	79.8	81.8	81.7	71.3	59.1	49.6	65.8
1889	46.2	51.1	60.2	64.6	68.4	75.8	77.6	77.2	75.2	65.0	59.2	51.9	64.4
1890	43.0	50.7	56.6	64.0	68.2	71.6	......	......	......	......	......	......	......
Means	46.0	50.6	56.3	60.3	66.9	73.5	77.3	77.2	73.5	62.7	53.7	48.8	62.2

BYRON, CAL.

1879	......	......	......	......	......	......	......	......	......	......	53.5	48.9	......
1880	44.8	46.2	53.3	60.8	70.0	77.1	84.5	80.9	72.9	69.1	52.1	53.5	63.8
1881	52.1	57.8	60.8	67.8	76.5	79.9	87.7	77.4	74.7	63.4	55.3	49.1	66.9
1882	47.1	49.9	58.9	65.2	75.1	77.0	86.5	82.4	74.1	62.9	49.5	50.0	61.9
1883	53.2	49.3	60.2	64.9	70.7	81.2	85.4	77.8	79.4	63.8	53.8	48.5	64.8
1884	47.2	50.0	59.8	58.3	68.3	70.9	82.1	81.3	69.6	63.0	59.0	51.2	63.4
1885	47.0	55.7	60.9	62.4	71.9	74.5	83.2	82.8	73.1	67.3	55.8	[50.4]	[65.4]
1886	46.9	54.8	57.5	63.7	73.3	81.8	85.6	82.2	75.8	64.0	52.7	51.2	65.8
1887	48.1	46.8	62.5	65.3	74.5	83.7	84.8	76.5	74.5	[65.1]	54.5	48.3	[65.4]
1888	41.8	56.5	59.4	69.2	69.5	78.2	80.3	84.5	79.0	69.1	57.9	53.2	66.6
1889	46.2	50.9	59.8	66.7	71.1	78.6	81.6	79.7	75.9	63.6	55.4	50.2	65.0
1890	43.4	49.7	54.9	62.8	......	76.7	......	......	......	......	......	......	......
Means	46.2	51.6	58.9	64.3	72.1	78.1	84.2	80.6	74.9	65.1	54.5	50.4	65.1

CACTUS, CAL.

1889	61.3	63.4	71.7	78.3	81.7	91.8	99.5	97.4	91.3	79.4	71.5	63.0	79.2
1890	57.5	65.2	70.1	......	......	......	......	......	......	......	......	......	......
Means	59.4	64.3	70.9	78.3	81.7	91.8	99.5	97.4	91.3	79.4	71.5	63.0	79.0

CADY, CAMP, CAL.

1868	46.5	52.8	61.9	73.2	77.2	89.8	91.6	89.3	79.4	66.0	49.9	46.1	68.6
1869	46.3	49.3	60.3	70.2	78.4	91.2	95.4	89.0	80.4	62.4	52.6	42.0	68.1
1870	45.6	51.0	54.1	66.9	74.7	83.9	91.2	88.4	79.4	64.2	53.3	40.7	66.1
1871	43.9	......	......	......	......	......	......	......	......	......	......	......	......
Means	45.6	51.0	58.8	70.1	76.8	88.3	92.7	88.9	79.7	64.2	51.9	42.9	67.6

CAHTO, CAL.

1869	......	......	......	......	......	......	......	......	......	......	......	45.8	......
1870	49.0	49.3	47.2	53.7	59.2	65.4	76.1	72.8	65.4	60.1	54.1	45.6	58.2
1871	48.4	46.0	......	......	......	......	......	......	......	......	......	......	......
Means	48.7	47.6	47.2	53.7	59.2	65.4	76.1	72.8	65.4	60.1	54.1	45.7	58.0

CALIENTE, CAL.

1876	46.0	51.5	52.5	62.6	71.1	81.7	85.2	84.0	78.5	68.8	59.8	53.9	66.6
1877	50.4	61.0	67.2	64.2	69.1	82.1	87.1	82.0	79.1	65.3	57.9	36.7	66.8
1878	59.7	54.0	61.0	61.9	73.1	83.0	85.8	87.2	72.2	66.0	59.5	48.7	67.7
1879	51.7	55.7	62.3	64.4	64.6	81.7	84.6	86.7	80.8	68.5	53.3	50.0	67.0
1880	45.8	45.7	52.6	59.8	66.9	80.4	86.8	85.6	79.5	65.6	50.7	52.9	64.4

***Mean monthly and annual temperature at stations in California*—Continued.**

CALIENTE, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	54.3	54.8	57.6	67.2	73.5	78.3	79.6	79.5	76.9	60.3	53.0	57.9	66.1
1882	53.1	47.9	55.9	57.2	70.4	79.5	83.4	86.4	68.9	60.7	[55.5]	49.1	[64.0]
1883	44.6	50.7	60.8	51.9	69.7	88.5	82.9	86.4	80.9	57.7	53.4	[50.4]	[64.8]
1884	47.7	49.5	54.8	55.2	70.0	70.9	82.5	81.7	72.0	64.1	52.0	47.6	62.3
1885	47.7	58.9	61.7	61.4	69.9	73.0	83.8	86.3	79.4	66.8	58.3	[50.4]	[66.6]
1886	55.6	50.9	47.8	58.1	70.6	81.8	84.7	85.8	73.4	61.1	53.7	55.0	64.9
1887	50.4	47.5	59.0	58.7	68.1	77.6	86.0	83.1	74.3	68.2	56.6	46.8	64.7
1888	47.0	55.4	53.3	67.9	74.1	75.1	83.5	82.1	82.9	69.6	54.7	52.9	66.5
1889	47.8	49.6	58.5	66.7	70.7	82.7	90.2	85.9	73.7	67.9	58.3	53.0	67.1
1890	44.4	48.2	49.2	58.9	73.6	77.0	......	......	......	......	......	......	......
Means	49.7	52.1	56.9	61.1	70.4	79.8	84.7	84.5	76.6	65.0	55.5	50.4	65.6

CALISTOGA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	52.3	[49.5]	56.8	54.7	66.2	69.0	72.4	69.4	68.3	63.9	54.7	51.5	[60.7]
1873	55.8	51.5	58.3	59.2	66.8	72.5	75.2	[71.0]	67.9	59.7	58.9	50.5	[62.3]
1874	48.4	47.0	47.6	56.0	61.2	73.5	75.0	70.2	70.5	60.9	54.0	46.3	59.2
1875	46.9	50.9	50.5	62.0	66.1	68.0	72.2	72.5	65.6	66.6	54.0	51.3	60.6
1876	46.9	51.7	50.6	57.8	67.7	79.8	73.1	71.4	66.6	61.0	52.8	48.7	60.7
1877	55.3	55.8	59.5	60.0	64.1	71.8	73.1	70.6	69.2	58.2	52.5	46.4	61.4
1878	47.2	50.0	55.0	58.4	63.1	70.0	71.9	72.9	67.3	63.0	54.6	46.8	60.0
1879	45.5	53.9	56.3	59.8	59.5	72.3	69.4	71.2	65.9	52.3	50.6	46.0	58.6
1880	43.9	45.9	48.1	52.9	62.2	67.1	71.2	70.1	67.5	61.1	52.8	56.5	58.3
1881	53.0	51.4	52.2	61.2	68.3	74.1	80.5	72.8	68.5	55.8	[52.8]	45.9	[61.4]
1882	45.1	44.5	52.6	57.5	67.8	68.1	75.4	73.4	66.6	55.5	48.0	47.6	58.5
1883	42.3	47.3	55.6	54.0	64.5	74.7	75.7	70.7	72.4	60.1	47.4	42.0	58.9
1884	45.3	45.6	50.3	55.2	64.8	67.2	72.2	72.2	64.2	59.8	53.2	48.7	58.2
1885	48.0	51.1	58.3	62.2	68.3	68.6	69.4	72.5	67.0	60.1	54.3	52.3	61.0
1886	46.3	52.3	50.7	56.5	63.1	71.1	73.1	71.6	68.2	58.4	49.5	50.6	59.3
1887	47.5	43.3	55.7	59.5	63.6	70.2	70.9	65.8	67.4	65.5	51.8	49.4	59.2
1888	44.4	53.7	55.1	60.3	58.5	61.8	67.3	[71.0]	65.8	61.7	54.7	52.7	[59.2]
1889	46.0	51.5	55.3	60.1	63.0	66.9	67.5	68.6	67.0	57.9	54.4	47.5	58.8
1890	41.9	43.5	50.0	54.7	......	69.1	......	......	......	......	......	......	......
Means	47.5	49.5	53.6	58.0	64.4	70.5	72.5	71.0	67.6	60.1	52.8	48.9	59.7

CAMPO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	48.1	47.9	43.1	......
1876	35.0	42.1	44.8	53.2	57.4	67.8	70.4	67.1	63.4	56.6	49.8	43.2	54.2
1877	40.4	44.4	51.9	49.6	53.7	63.5	68.4	69.6	66.2	57.6	[48.1]	46.9	[55.0]
1878	45.3	46.8	49.4	51.3	55.4	60.2	66.1	67.3	61.9	55.3	48.3	44.1	54.3
1879	43.3	48.8	52.0	52.5	55.1	61.7	67.8	69.9	64.6	55.7	46.3	42.9	55.0
1880	41.8	41.4	43.4	49.9	56.9	62.0	64.9	68.5	62.1	55.5	45.7	46.4	53.2
1881	42.9	46.7	47.7	54.5	58.8	60.8	69.7	66.1	61.6	51.2	45.0	44.8	54.2
1882	37.2	40.2	46.8	50.9	56.3	59.6	......	71.0	63.5	......	......	......	......
1889	[40.8]	35.5	44.4	42.5	53.2	65.4	71.9	82.6	68.5	54.4	53.4	52.8	[55.4]
1890	......		......	......	56.0	......	......	......	......	......	......	......	......
Means	40.8	43.2	47.6	50.6	55.9	62.6	68.5	70.3	64.0	55.6	48.1	45.5	54.4

CAPE MENDOCINO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	......	......	......	......	......	......	......	54.8	56.1	53.1	50.1	......	......
1883	45.0	43.5	49.8	46.7	50.0	54.5	52.0	53.6	59.7	52.5	50.4	49.4	50.6
1884	48.1	45.7	47.5	49.0	52.0	54.6	55.6	56.6	55.7	54.2	53.5	48.7	51.8
1885	49.7	49.2	49.9	50.8	51.5	53.7	56.7	53.6	57.6	57.5	52.7	51.0	52.8
1886	48.0	50.3	46.1	47.5	51.3	54.0	55.4	56.6	57.2	53.0	51.3	50.8	51.8
Means	47.7	47.2	48.3	48.5	51.2	54.2	54.9	55.0	57.3	54.1	51.6	50.0	51.7

***Mean monthly and annual temperature at stations in California*—Continued.**

CASTROVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	48.5	50.6	55.1	57.9	58.7	61.2	60.5	61.2	63.5	60.7	57.6	51.3	57.2
1890	45.3	48.7	53.2	56.8	60.6	67.0	......	......	......	......	......	......	......
Means	46.9	49.6	54.2	57.4	59.6	64.1	60.5	61.2	63.5	60.7	57.6	51.3	57.2

CENTREVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	......	54.0	......
1887	56.0	55.0	58.3	60.1	63.8	68.0	67.8	66.0	67.5	61.6	56.6	52.3	61.1
1888	48.6	55.0	55.6	62.0	63.0	69.0	68.0	72.5	80.2	65.8	58.3	55.0	62.8
1889	50.8	54.4	58.8	62.2	65.5	68.9	69.5	70.5	71.6	65.5	45.4	53.0	61.3
1890	48.3	52.1	57.9	62.9	66.4	67.0	......	......	......	......	......	......	......
Means	50.9	54.1	57.6	61.8	64.7	68.2	68.4	69.7	73.1	64.3	53.4	53.6	61.6

CHICO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	......	......	......	......	......	......	......	......	......	......	55.1	45.2	......
1870	47.8	50.9	51.3	60.1	67.4	76.3	85.8	81.6	71.7	62.6	53.8	44.6	62.8
1871	47.9	47.7	54.9	59.4	65.2	79.2	82.3	82.9	72.3	61.5	51.6	47.4	62.7
1872	46.9	51.9	55.6	59.1	71.3	77.0	89.1	77.7	73.1	63.5	50.4	46.5	63.5
1873	50.1	46.2	57.5	60.2	69.9	77.2	84.2	75.3	75.5	61.8	[52.8]	38.8	[62.5]
1874	43.2	45.9	50.0	58.7	65.6	73.9	80.3	74.9	71.4	60.7	51.1	42.9	60.0
1875	42.5	48.4	52.5	66.3	71.1	72.3	81.8	83.6	76.8	71.4	45.6	48.4	63.4
1876	44.9	48.4	52.6	61.8	65.7	79.9	74.5	73.6	75.1	70.8	55.6	47.8	62.6
1877	50.2	53.7	60.5	60.8	67.1	79.5	82.8	80.2	75.1	63.6	52.6	42.3	64.0
1878	49.6	51.3	57.6	65.6	70.8	83.3	85.4	85.8	74.3	66.1	56.0	46.0	66.0
1879	45.0	54.4	58.7	62.9	61.5	78.5	80.3	33.5	78.5	64.1	51.6	44.3	63.6
1880	44.6	45.4	54.0	57.6	65.7	75.7	85.2	80.8	78.9	76.1	48.1	49.5	63.5
1881	49.6	56.3	59.0	63.3	73.9	78.5	87.6	82.6	78.2	57.3	58.2	46.6	66.4
1882	43.0	45.1	56.8	61.2	68.8	79.5	85.5	85.8	76.6	64.9	46.4	50.8	63.7
1883	[46.5]	49.7	60.8	60.4	68.4	87.5	91.1	86.7	79.2	61.3	51.1	45.5	[65.7]
1884	46.6	44.4	53.8	60.7	71.2	70.2	84.1	86.7	69.1	58.4	57.5	50.6	62.8
1885	49.4	54.5	63.9	65.1	73.9	76.5	84.4	88.3	76.1	70.8	54.9	51.4	67.4
1886	48.5	57.1	51.7	60.2	70.5	84.0	89.0	85.1	77.9	62.5	52.9	52.6	66.2
1887	50.5	45.0	60.0	65.0	72.7	80.6	88.3	80.1	77.7	70.5	55.0	48.5	66.2
1888	42.6	51.9	56.4	70.9	71.6	75.1	86.0	[82.1]	83.0	67.2	54.7	51.4	[66.3]
1889	45.3	51.4	58.9	64.2	69.7	82.6	85.2	85.1	77.9	64.2	54.7	48.1	65.6
1890	42.1	46.3	51.5	61.3	68.7	71.3	......	......	......	......	......	......	......
Means	46.5	49.9	56.2	62.4	69.1	78.0	84.6	82.1	75.9	65.0	52.8	47.1	64.1

CHINO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	49.7	55.5	61.2	64.0	64.9	68.8	74.7	78.1	73.6	64.3	56.9	53.2	63.7

CHRISTMAS PRAIRIE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	......	......	......	56.1	57.7	63.6	50.7	49.9	46.8	38.8	......
1885	41.6	47.2	47.6	47.3	52.3	52.9	58.6	60.5	54.5	52.5	44.5	46.0	50.5
1886	39.8	45.4	38.8	43.0	45.9	58.0	70.9	60.8	50.0	46.8	42.5	42.0	48.7
1887	39.6	32.3	45.0	......	......	......	......	......	......	......	......	......	......
Means	40.3	41.6	43.8	45.2	49.1	55.7	62.4	61.6	51.7	49.7	44.6	42.3	49.0

CHUALAR, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	......	......	......	......	......	66.7	......	......	......	......	......	......
1882	43.3	46.6	50.7	54.6	56.0	56.7	56.9	57.5	56.7	54.3	51.1	50.5	52.9
1883	48.3	......	54.0	53.9	57.5	59.2	58.0	57.6	60.6	55.3	51.9	50.8	[54.8]

***Mean monthly and annual temperature at stations in California*—Continued.**

CHUALAR, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	48.8	49.5	51.5	54.3	54.7	57.7	61.0	59.7	56.9	53.1	51.3	49.2	54.0
1885	50.4	50.6	55.6	56.0	55.4	58.8	63.9	65.2	64.0	61.6	57.0	[51.1]	[57.5]
1886	45.6	57.3	52.5	61.9	66.5	64.8	66.2	66.0	64.7	60.8	56.0	54.0	59.7
1887	......	51.0	60.0	59.6	64.7	......	......	......	......	......	......	......	......
Means	47.3	51.0	54.0	56.7	59.1	59.4	62.1	61.2	60.6	57.0	53.5	51.1	56.1

CISCO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	64.8	55.6	47.9	39.3	24.0	......
1871	31.6	28.2	32.6	36.7	44.8	[56.3]	[64.4]	67.0	58.4	51.5	34.9	32.1	[44.9]
1872	30.2	30.3	30.6	30.6	43.8	56.0	62.0	62.9	55.1	49.8	36.9	35.9	43.7
1873	35.4	26.6	36.0	38.5	49.4	62.1	67.5	60.1	59.4	47.3	45.9	31.8	46.7
1874	32.6	30.4	31.1	35.2	41.3	49.3	63.6	57.5	57.7	47.5	38.8	35.9	43.4
1875	34.1	33.1	31.4	41.7	50.7	53.8	66.0	65.3	61.6	53.7	38.0	36.5	47.2
1876	28.3	31.0	30.2	36.6	36.8	56.3	59.1	60.4	57.8	47.5	39.9	40.6	43.7
1877	36.2	38.8	44.5	40.5	41.6	60.1	65.3	61.6	55.7	47.3	41.1	37.1	47.5
1878	34.1	33.6	37.1	40.5	44.1	62.3	64.7	64.6	34.7	48.4	43.1	36.2	45.3
1879	28.4	35.8	38.1	40.7	41.5	59.9	63.4	65.3	59.8	44.6	36.9	29.7	45.3
1880	28.1	27.2	26.4	33.1	40.2	51.5	65.2	59.5	54.6	48.8	37.8	34.4	42.2
1881	32.1	33.8	34.3	43.2	50.0	56.2	62.5	62.9	57.5	43.4	37.8	34.4	45.7
1882	27.6	29.0	32.1	36.0	47.1	58.3	71.9	69.4	61.8	46.0	36.3	36.4	46.0
1883	29.8	30.7	43.5	36.1	46.0	63.6	69.7	62.5	64.1	43.2	37.7	37.2	47.0
1884	32.8	27.5	31.2	34.3	43.4	51.0	63.1	63.1	46.9	45.5	42.6	29.9	42.6
1885	30.6	35.4	42.3	42.5	51.5	51.3	64.5	67.2	59.3	57.8	34.7	35.3	47.7
1886	30.8	37.3	31.7	35.0	47.3	57.2	62.4	60.5	54.6	40.1	34.7	35.4	43.9
1887	29.5	24.4	36.4	38.6	47.9	55.3	60.4	57.9	55.8	51.9	41.3	32.1	44.3
1888	27.8	33.0	34.8	44.8	48.2	51.1	63.4	[63.0]	62.6	50.2	[38.9]	35.7	[46.1]
1889	31.6	37.4	38.1	44.3	48.7	63.4	64.3	63.7	59.4	45.6	41.0	31.3	47.4
1890	25.4	29.9	33.2	37.3	43.3	51.5	......	......	......	......	......	......	......
Means	30.8	31.7	34.8	38.3	45.4	56.3	64.4	63.0	56.6	47.9	38.9	34.1	45.2

CLOVERDALE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	......	......	......	49.5	......
1877	51.0	52.8	57.8	56.6	......	......	......	......	......	......	......	......	......
1887	51.1	44.8	58.0	60.2	66.0	73.1	76.0	75.8	74.3	70.9	57.5	52.8	63.4
1888	44.8	53.6	......	......	......	......	......	......	......	......	......	......	......
Means	49.0	50.4	57.9	58.4	66.0	73.1	76.0	75.8	74.3	70.9	57.5	51.2	63.4

COLES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	40.8	40.6	39.9	51.6	53.0	58.0	69.2	70.9	64.6	53.6	42.4	40.0	52.0
1889	34.0	40.1	47.2	53.2	57.3	68.7	......	......	......	......	......	......	......
Means	37.4	40.4	43.6	52.4	55.2	63.4	69.2	70.9	64.6	53.6	42.4	40.0	52.8

COLFAX, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	77.2	69.6	61.2	52.6	48.6	......
1871	47.0	43.5	49.4	54.4	60.4	75.6	78.7	79.9	72.4	63.2	49.7	49.3	60.3
1872	44.4	48.2	50.2	53.2	65.9	72.2	77.6	78.0	70.4	64.1	52.9	48.7	60.5
1873	49.4	42.6	54.1	55.2	64.5	72.2	81.2	75.8	74.3	58.9	56.1	41.9	60.5
1874	43.4	42.1	42.1	53.6	61.8	70.1	79.5	73.9	72.3	59.5	49.3	45.7	57.8
1875	43.7	48.1	47.0	61.6	65.5	70.9	80.0	76.7	71.7	69.1	49.6	49.2	61.1
1876	41.2	46.1	46.2	53.6	62.2	75.5	76.0	73.4	69.1	59.8	53.8	53.0	59.2
1877	49.4	51.7	54.6	54.8	60.3	73.4	78.0	77.0	72.8	59.8	51.6	47.2	60.9
1878	44.5	43.2	49.8	57.3	65.3	77.8	78.4	79.5	68.1	60.5	52.7	47.1	60.4
1879	42.6	52.5	52.8	58.7	56.5	73.3	80.2	79.4	76.2	63.2	49.8	42.2	60.6
1880	46.3	42.7	50.4	51.8	58.9	75.5	77.0	78.6	69.4	58.1	47.6	46.5	58.6

Mean monthly and annual temperature at stations in California—Continued.

COLFAX, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	42.2	50.0	51.5	62.2	63.1	70.8	78.4	70.9	69.3	51.8	49.0	48.0	58.9
1882	41.4	39.1	48.2	53.5	61.3	72.4	78.6	82.1	69.1	52.3	47.9	47.7	57.8
1883	42.7	44.2	53.1	49.4	56.6	78.1	80.9	76.8	72.4	53.4	49.9	47.5	58.8
1884	45.6	44.1	46.9	49.9	62.6	63.0	73.8	77.2	65.7	59.0	55.9	46.2	57.5
1885	46.3	51.0	55.0	54.1	61.9	68.6	75.4	78.2	67.8	63.2	48.4	49.7	60.2
1886	44.5	50.4	46.0	52.7	60.1	72.6	72.6	76.1	71.3	54.7	49.5	48.8	58.3
1887	45.0	35.8	54.7	54.4	62.3	69.5	75.5	71.7	69.0	65.9	53.9	42.4	58.4
1888	37.8	47.8	49.0	60.4	61.2	65.4	75.0	76.8	73.7	60.9	50.7	47.6	58.9
1889	43.2	47.4	51.0	54.8	60.5	75.1	77.3	76.4	72.6	57.1	51.8	41.6	59.1
1890	36.0	42.3	46.8	55.8	61.9	67.0	......	......	......	......	......	......	......
Means	43.8	45.7	49.9	55.0	61.8	72.0	77.6	76.8	70.9	59.8	51.1	46.9	59.3

COLLEGE CITY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	47.3	48.9	55.3	66.5	69.4	73.4	77.7	78.5	67.1	61.7	53.9	49.5	62.4
1885	48.8	54.1	69.9	62.8	71.5	72.2	76.4	79.8	71.6	64.9	53.8	48.9	64.6
1886	......	52.8	......	......	......	......	......	......	......	......	......	......	......
1887	47.2	44.1	60.6	......	......	......	......	......	......	......	......	......	......
Means	47.8	50.0	61.9	64.6	70.4	72.8	77.0	79.2	69.4	63.3	53.8	49.2	63.3

COLTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	......	......	58.9	53.1	......
1877	50.1	54.3	59.8	59.4	63.1	76.7	80.9	78.3	76.1	68.1	56.1	56.8	65.0
1878	49.3	51.3	59.6	61.5	72.3	75.8	83.4	80.6	73.5	67.0	57.0	51.9	65.3
1879	46.4	56.1	65.1	65.9	68.4	73.7	79.3	86.1	79.7	69.5	55.9	51.5	66.4
1880	52.4	49.7	53.1	61.3	73.9	76.4	80.3	81.9	77.7	66.6	50.6	52.4	64.9
1881	50.5	55.5	55.5	63.0	[69.1]	80.1	83.7	80.1	75.7	60.3	52.7	52.3	[64.9]
1882	44.9	46.7	54.2	57.9	69.4	69.1	69.0	81.6	76.9	64.7	57.9	56.7	62.4
1883	54.3	52.8	57.0	61.6	66.5	75.2	71.0	70.4	70.4	55.7	56.8	[53.7]	[62.1]
1884	49.3	55.3	61.2	59.1	66.0	69.6	75.4	76.8	65.8	59.5	55.9	46.2	61.7
1885	52.2	54.9	59.0	62.4	67.4	76.4	82.0	87.4	79.3	70.9	63.7	50.1	67.1
1886	51.5	57.1	53.2	66.2	79.6	76.1	87.7	86.1	79.1	64.2	59.1	63.0	68.6
1887	56.8	51.1	64.3	60.3	68.4	74.8	78.5	76.9	73.8	65.6	57.1	49.3	64.7
1888	47.7	55.6	62.0	65.0	69.0	73.2	80.4	[80.8]	79.3	70.4	65.7	57.2	[67.2]
1889	48.4	57.4	60.2	67.1	66.0	72.3	82.3	80.3	76.0	67.0	58.1	58.2	66.1
1890	47.3	55.2	59.1	65.8	68.5	74.0	......	......	......	......	......	......	......
Means	50.1	53.8	58.8	62.6	69.1	74.5	79.5	80.8	75.6	65.3	57.5	53.7	65.2

CORNING, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	45.0	52.8	51.8	60.0	67.9	80.6	81.4	79.7	73.6	66.0	50.2	51.6	63.4
1887	48.7	44.0	55.7	59.8	68.7	78.3	87.3	80.1	75.7	70.1	54.0	48.2	64.2
1888	39.9	49.0	50.1	69.5	71.4	72.6	85.6	78.6	81.6	75.1	57.5	49.3	65.0
1889	44.8	46.1	55.1	63.4	71.2	84.6	88.2	82.0	77.6	61.0	55.9	47.6	64.8
1890	41.0	49.1	52.9	64.6	70.1	77.5	......	......	......	......	......	......	......
Means	43.9	48.2	53.1	63.5	69.9	78.7	85.6	80.1	77.1	68.0	54.4	49.2	64.3

CROOK, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1858	29.0	37.2	41.1	49.0	55.1	65.5	71.0	70.6	64.8	48.2	41.5	23.3	49.7
1859	20.4	31.3	33.1	45.6	56.2	72.6	73.0	67.5	62.0	53.2	39.2	26.6	48.4
1860	28.0	35.8	40.2	47.2	49.7	63.1	68.3	73.9	63.0	48.4	40.1	32.4	49.2
1861	31.4	37.0	42.6	50.6	54.8	62.1	75.7	[71.6]	65.0	51.2	40.2	37.0	[51.6]
1862	28.2	31.4	39.1	45.2	51.1	62.7	68.8	72.0	62.2	56.0	43.5	31.3	49.3
1863	30.0	30.0	39.5	49.1	60.1	66.4	75.5	70.2	64.6	51.5	40.0	37.1	51.2
1864	36.8	43.2	46.0	53.9	60.7	62.5	73.7	70.1	62.9	[51.5]	39.8	36.4	[53.1]
1865	[29.6]	34.0	40.2	48.7	63.2	68.8	71.5	70.6	57.7	51.1	43.5	[33.5]	[51.0]
1866	......	......	41.5	48.9	......	......	......	......	69.0	54.8	41.1	36.1	......

***Mean monthly and annual temperature at stations in California*—Continued.**

CHUALAR, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	48.8	49.5	51.5	54.3	54.7	57.7	61.0	59.7	56.9	53.1	51.3	49.2	54.0
1885	50.4	50.6	55.6	56.0	55.4	58.8	63.9	65.2	64.0	61.6	57.0	[51.1]	[57.5]
1886	45.6	57.3	52.5	61.9	66.5	64.8	66.2	63.0	64.7	60.8	56.0	54.0	59.7
1887	......	51.0	60.0	59.6	64.7	......	......	......	......	......	......	......	......
Means	47.3	51.0	54.0	56.7	59.1	59.4	62.1	61.2	60.6	57.0	53.5	51.1	56.1

CISCO, CAL.

1870	......	......	......	......	......	......	......	64.8	55.6	47.9	39.3	24.0	......
1871	31.6	28.2	32.6	36.7	44.8	[56.3]	[64.4]	67.0	58.4	51.5	34.9	32.1	[44.9]
1872	30.2	30.3	30.6	30.6	43.8	56.0	62.0	62.9	55.1	49.8	36.9	35.9	43.7
1873	35.4	26.6	36.0	38.5	49.4	62.1	67.5	60.1	59.4	47.3	45.9	31.8	46.7
1874	32.6	30.4	31.1	35.2	41.3	49.3	63.6	57.5	57.7	47.5	38.8	35.9	43.4
1875	34.1	33.1	31.4	41.7	50.7	53.8	66.0	65.3	61.6	53.7	38.0	36.5	47.2
1876	28.3	31.0	30.2	36.6	36.8	56.3	59.1	60.4	57.8	47.5	39.9	40.6	43.7
1877	36.2	38.8	44.5	40.5	41.6	60.1	65.3	61.6	55.7	47.3	41.1	37.1	47.5
1878	34.1	33.6	37.1	40.5	44.1	62.3	64.7	64.6	34.7	48.4	43.1	36.2	45.3
1879	28.4	35.8	38.1	40.7	41.5	59.9	63.4	65.3	59.8	44.6	36.9	29.7	45.3
1880	28.1	27.2	26.4	33.1	40.2	51.5	65.2	59.5	54.6	48.8	37.8	34.4	42.2
1881	32.1	33.8	34.3	43.2	50.0	56.2	62.5	62.9	57.5	43.4	37.8	34.4	45.7
1882	27.6	29.0	32.1	36.0	47.1	58.3	71.9	69.4	61.8	46.0	36.3	36.4	46.0
1883	29.8	30.7	43.5	36.1	46.0	63.6	69.7	62.5	64.1	43.2	37.7	37.2	47.0
1884	32.8	27.5	31.2	34.3	43.4	51.0	63.1	63.1	46.9	45.5	42.6	29.9	42.6
1885	30.6	35.4	42.3	42.5	51.5	51.3	64.5	67.2	59.3	57.8	34.7	35.3	47.7
1886	30.8	37.3	31.7	35.0	47.3	57.2	62.4	60.5	54.6	40.1	34.7	35.4	43.9
1887	29.5	24.4	36.4	38.6	47.9	55.3	60.4	57.9	55.8	51.9	41.3	32.1	44.3
1888	27.8	33.0	34.8	44.8	48.2	51.1	63.4	[63.0]	62.6	50.2	[38.9]	35.7	[46.1]
1889	31.6	37.4	38.1	44.3	48.7	63.4	64.3	63.7	59.4	45.6	41.0	31.3	47.4
1890	25.4	29.9	33.2	37.3	43.3	51.5	......	......	......	......	......	......	......
Means	30.8	31.7	34.8	38.3	45.4	56.3	64.4	63.0	56.6	47.9	38.9	34.1	45.2

CLOVERDALE, CAL.

1876	......	......	......	......	......	......	......	......	......	......	......	49.5	......
1877	51.0	52.8	57.8	56.6	......	......	......	......	......	......	......	......	......
1887	51.1	44.8	58.0	60.2	66.0	73.1	76.0	75.8	74.3	70.9	57.5	52.8	63.4
1888	44.8	53.6	......	......	......	......	......	......	......	......	......	......	......
Means	49.0	50.4	57.9	58.4	66.0	73.1	76.0	75.8	74.3	70.9	57.5	51.2	63.4

COLES, CAL.

1888	40.8	40.6	39.9	51.6	53.0	58.0	69.2	70.9	64.6	53.6	42.4	40.0	52.0
1889	34.0	40.1	47.2	53.2	57.3	68.7	......	......	......	......	......	......	......
Means	37.4	40.4	43.6	52.4	55.2	63.4	69.2	70.9	64.6	53.6	42.4	40.0	52.8

COLFAX, CAL.

1870	......	......	......	......	......	......	......	77.2	69.6	61.2	52.6	48.6	......
1871	47.0	43.5	49.4	54.4	60.4	75.6	78.7	79.9	72.4	63.2	49.7	49.3	60.3
1872	44.4	48.2	50.2	53.2	65.9	72.2	77.6	78.0	70.4	64.1	52.9	48.7	60.5
1873	49.4	42.6	54.1	55.2	64.5	72.2	81.2	75.8	74.3	58.9	56.1	41.9	60.5
1874	43.4	42.1	42.1	53.6	61.8	70.1	79.5	73.9	72.3	59.5	49.3	45.7	57.8
1875	43.7	48.1	47.0	61.6	65.5	70.9	80.0	76.7	71.7	69.1	49.6	49.2	61.1
1876	41.2	46.1	46.2	53.6	62.2	75.5	76.0	73.4	69.1	59.8	53.8	53.0	59.2
1877	49.4	51.7	54.6	54.8	60.3	73.4	78.0	77.0	72.8	59.8	51.6	47.2	60.9
1878	44.5	43.2	49.8	57.3	65.3	77.8	78.4	79.5	68.1	60.5	52.7	47.1	60.4
1879	42.6	52.5	52.8	58.7	56.5	73.3	80.2	79.4	76.2	63.2	49.8	42.2	60.6
1880	46.3	42.7	50.4	51.8	58.9	75.5	77.0	78.6	69.4	58.1	47.6	46.5	58.6

Mean monthly and annual temperature at stations in California—Continued.

COLFAX, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	42.2	50.0	51.5	62.2	63.1	70.8	78.4	70.9	69.3	51.8	49.0	48.0	58.9
1882	41.4	39.1	48.2	53.5	61.3	72.4	78.6	82.1	69.1	52.3	47.9	47.7	57.8
1883	42.7	44.2	53.1	49.4	56.6	78.1	80.9	76.8	72.4	53.4	49.9	47.5	58.8
1884	45.6	44.1	46.9	49.9	62.6	63.0	73.8	77.2	65.7	59.0	55.9	46.2	57.5
1885	46.3	51.0	55.0	54.1	64.9	68.6	75.4	78.2	67.8	63.2	48.4	49.7	60.2
1886	44.5	50.4	46.0	52.7	60.1	72.6	72.6	76.1	71.3	54.7	49.5	48.8	58.3
1887	45.0	35.8	54.7	54.4	62.3	69.5	75.5	71.7	69.0	65.9	53.9	42.4	58.4
1888	37.8	47.8	49.0	60.4	61.2	65.4	75.0	76.8	73.7	60.9	50.7	47.6	58.9
1889	43.2	47.4	51.0	54.8	60.5	75.1	77.3	76.4	72.6	57.1	51.8	41.6	59.1
1890	36.0	42.3	46.8	55.8	61.9	67.0	......	......	......	......	......	......	......
Means	43.8	45.7	49.9	55.0	61.8	72.0	77.6	76.8	70.9	59.8	51.1	46.9	59.3

COLLEGE CITY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	47.3	48.9	55.3	66.5	69.4	73.4	77.7	78.5	67.1	61.7	53.9	49.5	62.4
1885	48.8	54.1	69.9	62.8	71.5	72.2	76.4	79.8	71.6	64.9	53.8	48.9	64.6
1886	......	52.8	......	......	......	......	......	......	......	......	......	......	......
1887	47.2	44.1	60.6	......	......	......	......	......	......	......	......	......	......
Means	47.8	50.0	61.9	64.6	70.4	72.8	77.0	79.2	69.4	63.3	53.8	49.2	63.3

COLTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	......	......	58.9	53.1	......
1877	50.1	54.3	59.8	59.4	63.1	76.7	80.9	78.3	76.1	68.1	56.1	56.8	65.0
1878	49.3	51.3	59.6	61.5	72.3	75.8	83.4	80.6	73.5	67.0	57.0	51.9	65.3
1879	46.4	56.1	65.1	65.9	68.4	73.7	79.3	86.1	79.7	69.5	55.9	51.5	66.4
1880	52.4	49.7	53.1	61.3	73.9	76.4	80.3	81.9	77.7	66.6	50.6	52.4	64.9
1881	50.5	55.5	55.5	63.0	[69.1]	80.1	83.7	80.1	75.7	60.3	52.7	52.3	[64.9]
1882	44.9	46.7	54.2	57.9	69.4	69.1	69.0	81.6	76.9	64.7	57.9	56.7	62.4
1883	54.3	52.8	57.0	61.6	66.5	75.2	71.0	70.4	70.4	55.7	56.8	[53.7]	[62.1]
1884	49.3	55.3	61.2	59.1	66.0	69.6	75.4	76.8	65.8	59.5	55.9	46.2	61.7
1885	52.2	54.9	59.0	62.4	67.4	76.4	82.0	87.4	79.3	70.9	63.7	50.1	67.1
1886	51.5	57.1	53.2	66.2	79.6	76.1	87.7	86.1	79.1	64.2	59.1	63.0	68.6
1887	56.8	51.1	64.3	60.3	68.4	74.8	78.5	76.9	73.8	65.6	57.1	49.3	64.7
1888	47.7	55.6	62.0	65.0	69.0	73.2	80.4	[80.8]	79.3	70.4	65.7	57.2	[67.2]
1889	48.4	57.4	60.2	67.1	66.0	72.3	82.3	80.3	76.0	67.0	58.1	58.2	66.1
1890	47.3	55.2	59.1	65.8	68.5	74.0	......	......	......	......	......	......	......
Means	50.1	53.8	58.8	62.6	69.1	74.5	79.5	80.8	75.6	65.3	57.5	53.7	65.2

CORNING, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	45.0	52.8	51.8	60.0	67.9	80.6	81.4	79.7	73.6	66.0	50.2	51.6	63.4
1887	48.7	44.0	55.7	59.8	68.7	78.3	87.3	80.1	75.7	70.1	54.0	48.2	64.2
1888	39.9	49.0	50.1	69.5	71.4	72.6	85.6	78.6	81.6	75.1	57.5	49.3	65.0
1889	41.8	46.1	55.1	63.4	71.2	84.6	88.2	82.0	77.6	61.0	55.9	47.6	64.8
1890	41.0	49.1	52.9	61.6	70.1	77.5	......	......	......	......	......	......	......
Means	43.9	48.2	53.1	63.5	69.9	78.7	85.6	80.1	77.1	68.0	54.4	49.2	64.3

CROOK, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1858	29.0	37.2	41.1	49.0	55.1	65.5	71.0	70.6	64.8	48.2	41.5	23.3	49.7
1859	20.4	31.3	33.1	45.6	56.2	72.6	73.0	67.5	62.0	53.2	39.2	26.6	48.4
1860	28.0	35.8	40.2	47.2	49.7	63.1	68.3	73.9	63.0	48.4	40.1	32.4	49.2
1861	31.4	37.0	42.6	50.6	51.8	62.1	75.7	[71.6]	65.0	51.2	40.2	37.0	[51.6]
1862	28.2	31.4	39.1	45.2	51.1	62.7	68.8	72.0	62.2	56.0	43.5	31.3	49.3
1863	30.0	30.0	39.5	49.1	60.1	66.4	75.5	70.2	64.6	51.5	40.0	37.1	51.2
1864	36.8	43.2	46.0	53.9	60.7	62.5	73.7	70.1	62.9	[51.5]	39.8	36.4	[53.1]
1865	[29.6]	34.0	40.2	48.7	63.2	68.8	71.5	70.6	57.7	51.1	43.5	[33.5]	[51.0]
1866	......	......	41.5	48.9	......	......	......	......	69.0	54.8	41.1	36.1	......

Mean monthly and annual temperature at stations in California—Continued.

CROOK, FORT, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	33.7	31.6	29.3	48.0	61.7	66.6	73.1	74.3	61.1	49.2	44.9	[35.7]	[50.8]
1868	24.3	[34.4]	51.8	51.3	[56.9]	58.8	72.5	75.1	62.6	51.7	42.5	38.7	[51.7]
1869	33.9	32.7	44.2	51.1	......	......	......	......	......	......	......	......	......
Means	29.6	34.4	40.7	49.0	57.0	64.9	72.3	71.6	63.2	51.5	41.5	33.5	50.8

DAGGETT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	......	......	......	......	......	......	88.8	88.1	85.1	67.9	60.0	49.5	......
1884	46.2	48.1	50.3	56.4	66.9	77.3	88.7	86 8	......	......	......	......	......
Means	46.2	48.1	50.3	56.4	66.9	77.3	88.8	87.4	85.1	67.9	60.0	49.5	65.3

DAVISVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	......	......	56.6	......	......
1872	48.7	52.5	55.9	55.7	70.3	72.7	74.4	78.7	67.9	[65.9]	51.0	45.8	[61.6]
1873	52.5	47.0	53.0	62.4	66.1	71.1	82.5	76.2	76.5	63.9	61.9	45.3	63.2
1874	42.3	53.1	55.4	61.2	69.9	78.7	[77.7]	75.3	76.9	67.5	58.0	46.8	[63.6]
1875	50.4	55.0	58.5	68.9	73.2	74.6	78.2	77.5	77.4	77.0	56.8	53.7	65.8
1876	45.3	55.8	60.0	58.6	64.3	83.0	79.1	78.1	74.5	67.7	60.6	52.6	65.0
1877	56.0	61.1	61.6	65.0	68.2	77.9	77.6	76.7	80.7	69.3	58.7	52.9	67.4
1878	50.5	54.4	58.8	60.9	65.6	73.5	73.8	73 5	69.4	64.1	56.0	46.6	62.3
1879	46.5	54.4	58.1	61.1	61.9	76.3	75.7	79.5	73.5	65.6	54.2	49.4	63.0
1880	47.0	48.4	49.9	57.0	64.1	70.5	75.6	75.5	74.0	65.0	53.8	49.2	60.8
1881	49.1	52.5	56.4	62.8	70.1	72.8	79.4	74.7	73.7	60.7	50.9	46.4	62.5
1882	46.4	47.3	55.7	60.1	70.4	75.0	79.5	78.1	70.6	62.6	51.4	49.3	62.2
1883	45.2	47.6	60.7	61.7	68.4	79.6	83.6	74.8	74.6	63.8	52.4	44.9	63.1
1884	44.6	49.2	57.2	61.5	74 5	74.2	82.5	86.3	61.9	64.6	60.1	51.4	64.0
1885	47.0	54.9	59.9	61.9	70.0	72.6	76.0	80.1	78.4	69.2	57.4	51.8	64.9
1886	48.9	56.4	58.2	61.4	70.5	79.1	80.4	76.2	68.1	60.4	54.2	53.1	63.9
1887	50.2	47.6	61 1	62.1	68.7	75 4	74.4	74.1	70.6	69.0	55.5	49.0	63.1
1888	43.4	50.7	53.1	65.1	66.8	69.9	77.1	76.9	71.4	65.3	57.0	53.7	62.5
1889	46.1	52.5	58.5	64.5	69.6	71.6	70.9	80.5	76.5	64.3	56.5	51.7	63.6
1890	45.2	50.7	54.0	59.7	66.1	68.1	......	......	......	......	......	......	......
Means	47.7	52.2	57.3	61.7	68.4	74.6	77.7	77.4	73.1	65.9	55.9	49.6	63.5

DELANO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	76.5	79.4	86.7	90.1	74.8	70.9	56.6	54.9	......
1876	47.7	48.4	60.9	65.8	71.1	81.3	80.4	85.1	81.0	70.2	62.9	58.7	68.0
1877	57.2	60.9	63.7	61.8	70.4	79.7	78.8	85.2	81.6	68.4	58.5	51.1	68.1
1878	52.4	54.3	56.1	59.5	73.5	85.0	81.0	86.2	82.1	70.3	56.6	45.4	67.1
1879	41.2	51.7	62.1	64.8	65.1	85.1	89.8	92.4	84.0	70.5	57.1	53.3	68.1
1880	48.4	52.6	56.0	64.5	73.3	82.0	88.8	88.0	84.1	72.8	53.8	41.8	67.2
1881	49.6	55.3	58.0	66.5	74.3	77.3	83.4	85.3	80.2	62.8	53.4	51.4	66.5
1882	45.6	47.4	59.3	58.8	70.5	76.6	87.6	87.0	74.6	66.5	56.0	50.8	65.1
1883	40.1	52.4	64.2	59.9	66.6	83.8	88.7	83.8	82.5	62.1	49.1	37.4	64.2
1884	44.8	49.0	47.2	53.5	[71.9]	70.2	80.9	83.6	71.8	61.1	60.2	59.5	[62.8]
1885	53.2	56.9	63.0	65.8	71.9	77.9	84.2	89.2	79.6	68.5	[56.7]	51.0	[68.2]
1886	48.6	54.2	53.4	62.6	74.1	84.8	88.0	87.5	78.3	62.2	48.6	52.0	66.2
1887	46.4	48.5	58.4	66.3	74.7	82.7	91.0	88.2	85 0	72.0	64.9	50.7	69.1
1888	44.2	[52.4]	50.2	66.6	70.9	76.3	85.6	87.3	81.8	[67.5]	59.0	51.9	[66.4]
1889	46.4	51.8	61.6	68.6	71.8	86.8	88.2	87.3	82.3	66.9	56.7	53.0	68.4
1890	46.2	49.6	56.1	65.2	73.1	78.2	......	......	......	......	......	......	......
Means	47.5	52.4	58.0	63.3	71.9	80.4	85.7	87.1	80.6	67.5	56.7	50.9	66.8

DEL MONTE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	......	......	......	......	......	......	......	64.8	61.6	59.6	51.1	53.9	......
1881	52.7	56.3	62.8	62.3	62.7	64.9	66.4	......	......	......	......	......	......
Means	52.7	56.3	62.8	62.3	62.7	64.9	66.4	64.8	61.6	59.6	51.1	53.9	59.9

Mean monthly and annual temperature at stations in California—Continued.

DELTA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	......	......	......	......	......	......	......	55.8	48.7	40.0	......
1885	43.0	46.8	53.9	57.0	67.6	67.4	78.4	76.9	[72.6]	[57.7]	48.5	41.7	[59.8]
1886	29.8	49.9	48.8	57.3	64.4	75.8	77.3	76.1	72.5	51.8	47.5	45.8	58.1
1887	41.2	34.9	50.8	52.6	64.1	70.4	73.9	[76.2]	[72.6]	61.0	47.7	39.4	[57.1]
1888	33.7	45.8	44.4	62.3	66.4	67.4	77.2	76.4	74.6	61.2	54.2	48.7	59.4
1889	44.3	51.2	55.5	59.1	61.8	77.1	77.8	75.5	70.8	58.8	52.5	42.1	60.8
1890	28.3	41.6	47.8	59.5	66.6	70.3	......	......	......	......	......	......	......
Means	36.7	45.0	50.2	58.0	65.6	71.4	76.9	76.2	72.6	57.7	49.8	43.0	58.6

DENVERTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	78.9	72.4	73.5	71.9	64.1	53.5	53.1	......
1887	51.5	46.1	64.4	66.2	63.8	69.6	68.2	68.9	70.8	68.4	59.0	50.0	[62.2]
1888	44.9	56.9	60.5	72.1	69.7	69.2	78.5	81.2	80.1	......	......	......	......
Means	48.2	51.5	62.4	69.2	66.8	72.6	73.0	74.5	74.3	66.2	56.2	51.6	63.9

DOWNEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	47.8	51.1	54.3	61.9	62.0	70.8	66.5	65.8	71.4	62.5	55.8	52.8	60.2
1889	51.0	54.3	60.5	65.6	66.6	69.3	71.8	71.3	72.4	65.8	61.5	59.0	64.1
1890	50.1	57.2	62.9	68.2	66.5	69.8	......	......	......	......	......	......	......
Means	49.6	54.2	59.2	65.2	65.0	70.0	69.2	68.6	71.9	64.2	58.6	55.9	62.6

DRUM BARRACKS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864	50.9	......	......	......	65.7	69.8	71.7	73.5	71.0	68.0	60.4	54.0	......
1865	50.9	52.1	52.4	60.7	65.7	67.9	70.7	74.2	67.1	62.9	60.0	48.0	61.0
1866	54.9	58.2	57.2	63.8	......	......	......	......	70.8	65.5	59.1	56.9	......
1867	52.9	50.4	53.0	59.0	61.9	[69.3]	76.2	78.4	75.0	68.6	66.3	65.1	[64.7]
1868	57.0	59.8	60.9	65.1	66.1	70.2	75.2	78.8	75.5	71.0	[61.4]	62.0	[66.9]
1869	60.5	54.9	58.4	60.2	60.3	63.6	70.4	70.7	68.9	67.1	61.0	54.2	62.5
1870	55.5	56.6	56.0	57.9	[63.9]	[68.2]	[72.8]	72.6	67.4	65.2	61.6	51.9	[62.5]
1871	53.6	52.9	58.6	58.9	64.7	67.0	......	71.1	67.1	64.8	56.2	......	......
Means	54.5	55.0	56.6	60.8	64.0	68.0	72.8	74.2	70.4	66.6	60.8	56.0	63.3

DUNNIGAN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	......	......	......	49.9	......
1877	51.2	52.2	58.3	61.1	70.6	82.3	82.0	78.9	76.1	64.2	55.8	48.9	65.1
1878	50.0	50.3	54.6	59.8	69.1	78.9	77.0	81.3	72.4	66.7	55.4	46.4	63.5
1879	45.2	52.0	57.2	64.7	65.6	80.6	79.4	79.3	74.3	64.6	53.3	45.2	63.4
1880	43.5	46.3	46.6	58.3	67.8	78.4	83.4	78.8	75.0	67.8	50.4	44.9	61.8
1881	45.0	54.7	55.5	67.3	73.6	72.7	83.2	76.6	68.3	59.9	53.0	41.9	62.6
1882	43.2	46.8	53.4	61.1	78.2	80.5	85.6	82.9	77.5	64.8	55.9	51.9	65.2
1883	44.4	45.0	56.4	58.2	67.8	77.2	85.8	80.8	80.4	65.8	59.4	44.5	63.8
1884	48.6	49.2	56.0	64.6	69.8	71.9	80.7	79.2	72.8	61.7	54.5	47.5	63.0
1885	47.6	55.0	62.3	65.8	73.9	74.7	81.3	84.6	79.5	68.4	54.3	47.2	66.2
1886	46.4	50.5	52.4	59.9	71.1	82.7	84.5	81.2	76.5	64.5	52.3	51.7	64.5
1887	51.0	46.1	63.6	64.6	71.7	79.7	79.3	77.8	73.8	67.9	56.8	48.8	65.1
1888	45.0	57.2	61.8	71.5	73.1	79.0	82.7	83.3	80.5	71.5	55.5	52.6	67.8
1889	43.4	50.3	61.8	64.5	68.6	76.2	78.4	77.8	74.8	64.0	55.0	49.7	63.7
1890	43.4	47.4	54.0	62.5	72.2	79.0	......	......	......	......	......	......	......
Means	46.3	50.2	56.7	63.1	70.9	78.1	81.8	80.2	75.5	65.5	54.7	47.9	64.2

***Mean monthly and annual temperature at stations in California*—Continued.**

DUNSMUIR, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	59.2	......	......	62.6	53.5	44.7	......
1889	41.0	47.4	49.4	51.3	53.2	67.6	70.8	69.5	62.6	56.9	47.0	38.7	54.8
1890	33.7	38.5	......	43.0	66.3	64.6	......	......	......	......	......	......	......
Means	37.4	43.0	49.4	47.2	59.8	66.1	65.0	69.5	62.6	59.8	50.2	41.7	54.3

EDGWOOD, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	......	55.2	......	40.5	......
1889	33.1	36.9	45.7	50.7	54.7	67.5	71.7	66.0	59.9	51.8	51.1	......	......
1890	25.8	......	41.2	48.1	58.5	63.7	......	......	......	......	......	......	......
Means	29.4	36.9	43.4	49.4	56.6	65.6	71.7	66.0	59.9	53.5	51.1	40.5	52.0

EL CAJON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	......	57.7	52.4	......
1876	47.5	51.8	52.5	58.7	61.7	67.1	71.7	......	......	......	57.7	53.9	......
1877	......	......	58.6	57.5	......	......	......	......	......	......	......	......	......
Means	47.5	51.8	55.6	58.1	61.7	67.1	71.7	......	......	......	57.7	53.2	......

EL DORADO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	......	......	......	48.7	......
1889	43.8	48.5	57.0	62.3	68.2	80.5	83.1	80.5	71.1	61.5	57.1	47.9	63.5
1890	39.2	47.0	52.8	60.6	67.0	72.0	......	......	......	......	......	......	......
Means	41.5	47.8	54.9	61.4	67.6	76.2	83.1	80.5	71.1	61.5	57.1	48.3	62.6

ELLIS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	49.3	47.6	57.1	64.4	68.0	80.2	83.1	82.1	73.6	69.2	53.2	49.1	64.7
1872	46.1	53.1	56.3	56.9	66.3	74.2	76.5	76.1	71.4	65.1	53.8	48.0	62.0
1873	51.2	48.2	61.7	60.9	72.0	79.0	84.2	77.7	75.1	62.1	53.9	45.1	64.3
1874	43.5	47.8	51.0	61.9	67.5	77.1	81.8	77.9	72.5	63.5	54.0	41.8	61.7
1875	44.0	49.7	53.3	66.0	72.2	74.1	79.7	77.9	73.7	72.0	56.3	47.6	63.9
1876	45.7	49.6	52.6	59.3	66.2	79.7	80.7	74.5	74.3	65.2	55.1	47.1	62.5
1877	50.7	56.4	63.2	62.6	66.7	77.9	83.3	79.8	76.6	66.8	55.6	44.8	65.4
1878	48.6	51.7	57.4	62.6	70.7	79.4	81.4	80.7	74.4	65.4	58.1	47.0	64.8
1879	44.6	53.1	51.9	61.2	63.8	75.7	......	......	......	......	......	......	......
Means	47.1	50.8	56.1	61.8	68.2	77.5	81.3	78.3	74.0	66.2	55.0	46.4	63.8

ELMIRA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	49.9	57.0	57.0	63.0	72.1	81.1	84.4	85.4	77.5	65.9	55.9	54.5	67.0
1887	53.8	47.5	59.9	63.2	66.6	73.0	71.8	71.4	72.8	68.6	55.4	49.8	62.8
1888	44.6	54.4	56.6	64.4	65.4	73.1	[77.6]	82.5	80.6	65.8	59.0	53.0	[64.8]
1889	49.0	55.0	63.3	66.9	71.6	73.1	76.5	76.5	75.1	64.1	58.2	50.3	65.0
1890	45.8	51.5	54.9	62.4	70.0	71.6	......	......	......	......	......	......	......
Means	48.6	53.1	58.3	64.0	69.1	74.4	77.6	79.0	76.5	66.1	57.1	51.9	64.6

***Mean monthly and annual temperature at stations in California*—Continued.**

EL MONTE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	......	......	......	......	......	......	......	......	......	......	56.4	......
1873	57.2	52.3	59.4	60.1	64.6	69.7	73.2	73.6	69.1	58.8	57.8	53.4	62.4
1874	53.0	50.4	56.4	57.4	63.4	65.4	[72.4]	68.7	66.7	65.0	[57.7]	50.8	[60.6]
1875	52.8	53.7	52.7	57.5	62.6	65.2	69.5	72.3	68.5	69.4	56.9	52.9	61.2
1876	48.5	53.4	54.5	50.9	62.6	69.6	74.4	70.6	67.1	64.7	58.3	58.0	61.0
1877	58.0	57.5	60.6	59.9	62.5	71.1	......	......	......	......	......	......	......
Means	53.9	53.5	56.7	57.2	63.1	68.2	72.4	71.3	67.8	64.5	57.7	54.3	61.7

ELSINORE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	......	56.0	......
1887	52.4	47.4	60.3	59.4	65.3	71.4	80.6	78.0	75.1	67.8	59.8	50.1	64.0
1888	47.0	53.0	50.0	59.9	63.6	68.4	75.3	74.8	73.9	64.6	53.9	50.8	61.3
1889	46.2	51.2	......	......	......	......	......	......	......	......	......	......	......
Means	48.5	50.5	55.2	59.6	64.4	69.9	78.0	76.4	74.5	66.2	56.8	52.3	62.7

EL VERANO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	70.7	67.7	62.1	55.6	53.0	......
1889	47.8	50.6	57.2	61.8	61.4	64.4	65.7	66.6	67.0	59.9	55.1	47.8	58.8
1890	43.4	47.0	51.3	57.0	63.9	66.5	......	......	......	......	......	......	......
Means	45.6	48.8	54.2	59.4	62.6	65.4	65.7	68.6	67.4	61.0	55.4	50.4	58.7

EMIGRANT GAP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	76.9	67.1	45.7	50.7	......	......
1871	......	33.0	38.4	43.9	51.9	67.8	71.3	......	......	......	......	......	......
1872	[35.2]	38.5	41.8	43.0	65.1	66.0	73.1	71.0	63.3	55.3	65.4	40.8	[54.9]
1873	43.4	32.3	46.2	45.7	54.2	65.8	71.8	67.5	65.5	52.0	49.0	34.1	52.3
1874	35.4	33.4	32.5	42.3	48.0	55.6	67.2	60.3	60.8	52.1	44.5	39.7	47.6
1875	36.6	41.7	38.5	52.6	56.8	64.9	72.7	70.2	64.7	61.6	41.2	40.2	53.5
1876	30.6	31.3	36.5	38.8	50.0	60.3	66.8	60.6	58.6	49.5	45.9	42.7	47.6
1877	34.5	36.7	37.4	32.7	42.0	62.9	71.2	66.8	65.4	51.5	42.2	37.5	48.4
1878	34.5	34.7	41.9	48.6	56.1	68.6	69.0	71.8	62.2	56.7	49.3	41.4	52.9
1879	34.6	43.1	43.9	47.6	48.9	66.0	69.9	72.0	65.9	53.3	44.1	37.3	52.2
1880	37.1	34.8	32.6	39.1	45.2	58.0	68.6	64.8	63.8	58.5	42.6	38.0	48.2
1881	37.7	38.7	41.2	58.2	56.0	57.9	64.6	61.9	59.9	45.2	42.7	38.9	50.6
1882	32.2	32.4	33.5	38.5	49.1	57.3	67.9	65.6	59.8	47.0	39.2	31.3	46.2
1883	34.4	32.3	47.5	39.4	50.0	66.1	72.7	68.2	64.0	42.5	42.2	40.7	50.2
1884	35.5	31.7	36.2	38.4	50.8	53.9	62.0	62.1	52.9	50.6	48.7	37.2	46.0
1885	36.5	39.8	46.6	44.5	53.6	54.1	67.2	69.2	62.2	56.2	39.5	41.0	50.7
1886	35.6	44.0	36.4	40.8	53.1	61.1	65.3	66.9	64.0	46.2	44.3	44.4	50.9
1887	38.6	30.8	48.3	45.9	53.8	61.5	68.0	66.9	61.9	57.9	47.1	38.4	51.6
1888	32.3	39.2	38.7	53.9	53.0	54.7	64.7	67.3	66.7	54.9	43.6	40.4	50.8
1889	35.7	40.6	41.0	46.4	49.2	63.9	65.9	66.5	64.4	48.1	43.7	31.1	49.7
1890	28.4	33.3	34.0	41.4	51.2	56.6	......	......	......	......	......	......	......
Means	35.2	36.1	39.7	44.1	51.9	61.2	68.4	67.2	62.8	51.8	45.6	38.6	50.2

ESPERANZA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	84.1	67.8	56.2	48.3	......
1889	40.2	44.4	55.6	63.9	70.1	80.8	80.9	78.9	78.8	61.5	53.2	48.8	63.1
1890	41.8	47.7	53.8	61.4	......	......	......	......	......	......	......	......	......
Means	41.0	46.0	54.7	62.6	70.1	80.8	80.9	78.9	81.4	64.6	54.7	48.6	63.7

***Mean monthly and annual temperature at stations in California*—Continued.**

EUREKA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	47.0	41.4	49.3	48.5	51.9	52.7	52.5	54.5	53.4	52.3	50.6	47.5	50.1
1888	44.6	48.1	47.7	50.9	53.0	58.8	58.0	57.4	57.4	54.6	51.2	52.2	52.8
1889	46.9	48.2	52.2	53.2	54.8	55.0	55.6	55.4	56.0	56.2	53.2	46.6	52.8
1890	42.2	44.4	46.9	49.0	54.0	55.2	......	......	......	......	......	......	......
Means	45.2	45.5	49.0	50.4	53.4	55.4	55.4	55.8	55.6	54.4	51.7	48.8	51.7

FAIRFIELD, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	......	......	59.1	51.8	......
1872	50.0	[51.7]	[57.0]	58.4	67.7	75.3	76.1	79.4	78.3	78.9	67.2	53.2	[66.1]
1873	57.4	51.1	58.8	59.7	63.3	77.4	78.9	72.7	75.7	67.3	64.4	53.3	65.0
1874	52.2	52.3	51.4	59.4	62.2	76.4	75.4	76.6	80.2	68.0	60.2	48.2	63.5
1875	45.9	50.8	58.6	65.7	70.0	67.8	71.0	78.6	72.4	62.3	52.0	46.1	61.8
1876	47.6	47.3	53.9	59.9	72.1	74.6	[73.1]	70.5	74.5	67.3	56.4	45.9	[61.9]
1877	51.4	53.1	58.7	61.4	66.8	74.8	76.0	71.4	76.6	68.5	61.7	49.2	64.1
1878	54.1	55.8	60.7	66.7	70.1	72.1	72.6	71.8	70.6	67.3	58.7	46.7	63.9
1879	50.1	57.2	60.2	64.5	62.1	73.7	72.1	76.2	72.3	66.6	56.6	49.5	63.4
1880	50.5	50.3	51.5	54.6	62.8	65.2	69.4	65.7	62.1	62.8	54.1	51.1	58.3
1881	47.6	52.7	55.2	63.2	67.7	72.4	74.3	71.8	77.2	63.3	56.5	49.0	62.6
1882	48.8	49.5	56.4	60.7	68.9	70.8	71.5	73.5	70.2	62.2	52.9	51.9	61.4
1883	47.5	48.2	58.0	59.6	61.4	73.0	81.5	75.8	78.2	53.9	41.7	34.6	59.4
1884	37.5	50.5	56.2	59.6	65.6	66.5	73.0	72.7	68.3	63.3	55.4	50.1	59.9
1885	46.8	54.8	60.5	62.2	64.4	65.2	68.9	70.3	71.0	65.7	57.1	53.2	61.7
1886	49.9	56.4	55.4	58.5	64.5	70.4	72.7	72.4	69.7	61.3	52.5	53.4	61.4
1887	51.7	48.5	59.9	61.0	64.7	68.8	68.2	69.4	71.6	67.6	56.8	48.3	61.4
1888	44.7	51.9	56.9	63.5	61.7	68.3	71.1	72.5	71.9	65.7	58.7	54.1	61.8
1889	48.7	51.9	59.8	63.9	66.2	69.3	70.5	72.7	69.6	60.5	57.8	51.1	61.8
1890	44.6	48.5	53.5	59.7	65.8	66.3	......	......	......	......	......	......	......
Means	48.8	51.7	57.0	61.2	65.7	71.0	73.1	73.0	72.8	65.1	56.8	49.5	62.1

FALL BROOK (OAKWOOD), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	51.4	53.6	52.9	56.1	61.3	65.5	......	......	......	60.1	52.0	50.4	......
1885	50.6	53.9	58.2	60.7	64.2	65.4	70.1	72.5	68.0	63.0	57.7	54.6	61.6
1886	53.5	58.0	52.6	56.0	62.0	65.6	69.2	72.9	65.7	57.1	54.6	53.9	60.1
1887	50.9	48.5	56.9	57.9	61.0	66.2	69.3	67.1	66.6	60.4	56.0	49.8	59.2
Means	51.6	53.5	55.2	57.7	62.1	65.7	69.5	70.8	66.8	60.2	55.1	52.2	60.0

FARMINGTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	60.1	60.9	66.0	76.6	......	......	......	......	......	......	......
1878	......	......	......	......	......	......	76.8	77.9	71.7	62.2	52.9	43.3	......
1879	43.7	53.2	57.5	61.0	62.9	76.7	77.5	80.6	73.8	61.8	51.3	43.6	62.0
1880	42.0	43.6	47.7	55.6	63.2	69.8	77.6	75.9	71.3	63.2	47.9	49.9	59.0
1881	46.9	53.6	54.3	64.2	70.3	72.8	77.6	72.5	72.5	60.5	54.2	43.8	61.9
1882	42.5	44.6	51.6	56.8	67.7	72.9	79.9	78.9	73.6	59.5	49.1	47.2	60.4
1883	40.4	45.4	56.8	55.6	63.8	74.9	79.2	71.2	75.5	68.6	49.2	45.1	59.6
1884	45.4	48.2	52.6	57.9	67.0	70.5	72.8	72.6	69.2	62.2	54.4	46.0	59.9
1885	45.2	55.7	61.6	63.4	67.1	69.1	80.5	82.6	76.2	69.1	56.0	52.1	64.9
1886	49.0	57.9	53.3	62.0	69.4	77.7	80.4	77.2	72.8	61.8	52.3	50.9	63.7
1887	45.9	46.1	61.8	60.5	67.6	74.8	77.8	75.4	74.1	69.2	61.3	45.8	63.4
1888	44.5	53.1	54.5	66.3	66.5	72.8	76.3	[76.7]	78.4	65.4	54.2	48.8	[63.1]
1889	44.7	49.1	57.0	64.5	67.4	76.6	78.7	78.8	74.9	64.2	54.5	51.6	63.5
1890	43.6	48.6	53.8	59.8	68.5	71.2	......	......	......	......	......	......	......
Means	44.5	49.9	55.6	60.7	66.7	73.6	77.9	76.7	73.7	63.1	53.1	47.3	61.9

FAR WEST, CAMP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1850	44.0	45.9	49.2	57.6	71.9	......	......	......	......	66.0	50.2	43.1	......
1851	45.3	48.0	52.6	60.8	62.1	71.7	75.5	76.3	69.3	64.7	54.4	46.6	60.6
1852	46.6	51.4	52.1	......	......	......	......	......	......	......	......	......	......
Means	45.3	48.4	51.3	59.2	67.0	71.7	75.5	76.3	69.3	65.4	52.3	44.8	60.5

Mean monthly and annual temperature at stations in California—Continued.

FELTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	67.4	66.0	61.0	54.6	53.6	......
1889	47.5	51.3	57.9	62.5	60.0	68.0	67.2	65.8	65.8	59.6	54.9	52.0	59.4
1890	44.9	46.7	53.4	59.0	67.3	69.0	......	......	......	......	......	......	......
Means	46.2	49.0	55.6	60.8	63.6	68.5	67.2	66.6	65.9	60.3	54.8	52.8	59.3

FENNER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	......	......	......	......	......	......	......	88.4	83.5	66.1	62.2	52.3	......
1884	40.0	48.9	54.5	64.2	73.3	84.4	89.6	90.0	79.0	......	......	......	......
Means	40.0	48.9	54.5	64.2	73.3	84.4	89.6	89.2	81.2	66.1	62.2	52.3	67.2

FERNDALE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	......	......	48.8	......
1890	41.0	43.9	47.0	......	......	......	......	......	......	......	......	......	......
Means	41.0	43.9	47.0	......	......	......	......	......	......	......	......	48.8	......

FLORENCE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	55.0	57.5	61.1	64.3	64.2	68.9	71.6	71.2	72.5	65.4	57.5	58.7	64.0
1890	55.0	54.3	61.8	65.5	65.2	69.8	......	......	......	......	......	......	......
Means	55.0	55.9	61.4	64.9	64.7	69.4	71.6	71.2	72.5	65.4	57.5	58.7	64.0

FOLSOM, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1861	......	......	55.0	58.6	63.6	68.7	80.5	77.5	74.8	62.8	......	......	......
1888	......	......	......	......	......	......	......	......	80.1	68.6	......	51.9	......
1889	44.7	50.6	60.6	66.3	69.1	77.6	81.5	81.0	76.8	63.0	57.0	48.7	64.7
1890	42.5	46.8	54.1	61.8	66.4	71.1	......	......	......	......	......	......	......
Means	43.6	48.7	56.6	62.2	66.4	72.5	81.0	79.2	77.2	64.8	57.0	50.3	63.3

FRESNO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	50.0	57.1	63.9	61.8	68.6	81.2	84.8	82.7	77.7	62.9	53.7	45.9	65.9
1878	46.5	49.8	54.4	58.0	68.8	78.5	82.0	82.6	72.0	59.8	66.2	51.4	64.2
1879	49.1	57.9	63.3	67.7	64.6	82.7	61.8	88.6	81.4	60.3	59.0	48.0	67.0
1880	48.5	49.8	53.4	58.5	70.1	81.1	81.4	81.5	82.4	71.4	62.1	53.6	66.6
1881	52.3	61.9	64.8	69.7	75.3	79.1	85.6	83.9	73.3	61.0	52.1	50.5	67.5
1882	43.9	47.8	54.3	59.6	73.7	77.3	88.5	85.8	76.3	59.2	51.2	47.4	63.8
1883	47.7	41.4	60.0	59.2	69.6	86.9	86.8	82.8	80.3	59.0	50.2	51.6	64.6
1884	46.7	49.5	54.3	59.4	70.9	73.5	82.5	84.0	71.1	65.8	60.9	55.7	64.5
1885	53.1	53.5	58.3	64.5	73.2	78.2	88.2	88.3	75.1	66.7	59.0	52.1	67.5
1886	50.6	54.9	54.9	62.0	72.2	80.0	84.2	85.6	77.4	61.0	57.4	50.9	65.9
1887	47.8	49.3	62.7	63.6	72.4	79.6	87.5	82.6	75.2	68.5	56.3	46.3	66.0
1888	44.1	53.2	54.1	67.1	68.6	74.1	81.7	83.0	80.7	66.5	54.3	48.2	64.6
1889	43.8	50.2	58.4	63.5	69.6	79.5	82.6	82.2	75.6	62.8	54.1	49.1	64.3
1890	42.2	47.2	54.6	61.2	69.4	73.4	......	......	......	......	......	......	......
Means	47.6	51.7	57.9	62.6	70.5	78.9	84.7	84.4	76.8	63.5	56.7	50.0	65.4

FRUTO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	83.3	70.9	57.4	49.7	......
1889	47.3	52.0	58.6	64.0	70.3	84.7	84.5	84.5	82.9	63.5	58.2	48.9	66.6
1890	41.6	48.3	52.9	62.3	71.2	......	......	......	......	......	......	......	......
Means	44.4	50.2	55.8	63.2	70.8	84.7	84.5	84.5	83.1	67.2	57.8	49.3	66.3

Mean monthly and annual temperature at stations in California—**Continued.**

GALT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	77.7	73.3	70.2	61.3	51.9	49.0	......
1878	49.0	54.6	57.1	60.3	67.8	75.8	77.7	77.2	71.4	64.8	56.9	44.5	63.1
1879	48.5	53.4	57.2	60.3	63.9	76.8	78.2	79.1	75.9	62.5	53.0	46.4	62.9
1880	43.1	46.3	50.9	56.7	64.9	71.1	78.6	76.3	72.8	65.6	52.4	55.3	61.2
1881	54.7	54.3	58.4	67.2	68.4	70.2	78.8	73.1	76.0	62.8	52.2	47.3	63.6
1882	45.2	46.5	53.3	59.6	59.6	69.0	77.9	77.3	73.0	60.4	47.5	47.7	59.8
1883	39.5	44.1	59.5	59.3	66.8	78.9	80.1	78.5	75.2	60.3	52.2	48.8	61.9
1884	46.9	52.8	59.4	64.2	72.5	72.5	78.4	80.5	73.6	67.4	54.9	54.6	64.8
1885	47.7	48.8	56.6	60.0	66.7	75.4	78.6	71.3	66.8	56.2	53.4	49.0	60.9
1886	47.2	53.6	54.0	58.3	68.1	76.0	78.0	76.3	70.1	58.6	50.2	49.5	61.7
1887	50.5	45.4	60.5	58.6	75.4	81.7	79.8	77.9	[72.6]	63.4	60.8	52.1	[64.9]
1888	46.8	47.5	53.1	68.2	68.7	72.7	80.1	78.6	73.8	65.8	56.0	49.6	63.4
1889	44.8	50.7	58.0	64.5	66.8	75.3	77.5	77.0	72.2	62.4	50.6	51.1	62.6
1890	45.9	48.0	......	......	63.5	75.8	......	......	......	......	......	......	......
Means	46.9	49.7	56.5	61.4	67.5	74.7	78.6	76.6	72.6	62.4	53.2	49.6	62.5

GASTON, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1861	......	......	......	......	......	......	......	......	68.6	59.9	56.6	57.2	......
1862	50.4	49.2	51.0	55.2	59.1	66.5	71.1	74.1	69.6	65.5	54.3	46.3	59.6
1863	48.8	49.0	58.4	61.0	65.2	69.0	77.1	74.2	72.0	61.9	54.8	54.0	62.1
1864	50.2	47.6	52.7	57.3	66.5	66.9	72.5	68.5	64.3	[56.5]	45.2	45.0	[57.8]
1865	41.0	40.4	46.2	54.3	63.8	69.3	74.0	71.4	62.8	58.2	46.4	38.4	55.5
1866	44.2	47.1	49.6	55.5	......	......	......	......	68.2	56.2	49.5	47.6	......
1867	44.0	42.9	44.0	......	......	......	......	70.8	62.2	53.4	51.1	45.9	......
1868	35.9	41.8	47.2	53.2	58.2	61.7	71.9	71.7	62.8	56.6	48.2	45.8	54.6
1869	42.7	44.2	52.5	56.1	62.2	73.9	74.1	69.3	65.3	54.6	50.4	41.9	57.3
1870	43.9	47.5	47.4	54.5	60.3	66.7	77.3	79.0	64.8	54.5	48.5	41.1	57.1
1871	42.8	45.5	48.5	54.7	57.9	70.5	72.8	75.5	63.7	55.2	46.5	46.6	56.7
1872	45.1	48.8	52.6	52.0	61.3	69.2	73.1	73.8	65.9	57.8	46.4	44.5	57.5
1873	48.8	43.3	52.7	56.7	61.4	67.2	73.1	73.3	69.7	56.8	53.6	42.8	58.3
1874	42.0	43.0	45.3	53.7	62.3	65.6	72.5	68.1	64.8	59.3	50.2	42.8	55.8
1875	39.8	46.5	46.3	59.2	58.7	65.6	71.4	71.0	64.4	59.5	49.2	47.3	56.6
1876	40.7	44.0	46.1	54.1	56.9	70.9	70.0	71.0	63.3	58.9	49.1	41.5	55.5
1877	44.0	49.9	54.4	55.1	58.2	66.9	68.8	70.1	63.5	55.0	49.8	43.8	56.6
1878	43.8	45.8	53.0	54.6	60.6	69.6	70.3	72.4	63.5	53.9	49.1	36.9	56.1
1879	36.9	46.2	49.5	52.7	54.3	64.9	69.8	74.0	68.4	56.6	44.7	38.9	54.7
1880	39.2	39.3	42.0	48.4	55.2	62.7	72.5	67.9	65.0	54.6	41.8	47.7	53.0
1881	44.9	49.8	51.8	58.7	63.2	63.6	68.8	67.0	62.9	51.2	43.7	43.2	55.7
1882	39.0	40.6	47.0	51.7	58.8	67.8	75.0	69.2	62.9	53.1	46.0	45.8	54.7
1883	40.3	41.0	54.1	[54.8]	60.0	69.2	74.9	70.3	64.9	52.8	45.8	39.9	[55.7]
1884	41.9	41.7	47.8	53.3	62.4	63.8	68.1	72.6	59.9	54.0	49.7	41.7	54.7
1885	45.3	50.9	55.3	57.8	63.4	63.4	73.1	72.0	65.7	60.9	47.0	47.6	58.5
1886	42.0	49.8	49.3	53.2	61.4	67.4	73.5	70.9	66.5	53.8	44.9	48.4	56.8
1887	44.4	38.6	51.4	53.7	60.2	66.1	71.9	69.3	65.1	54.6	46.8	42.5	55.4
1888	36.2	43.9	49.0	[54.8]	57.1	58.1	69.9	68.3	[65.0]	[56.5]	47.9	42.6	[54.1]
1889	37.2	41.5	50.0	53.6	56.2	67.4	69.8	65.8	60.5	55.6	46.6	42.2	53.9
1890	38.2	42.7	48.8	55.6	63.3	64.8	......	......	......	......	......	......	......
Means	42.5	44.9	49.9	54.8	60.3	66.6	72.2	71.2	65.0	56.5	48.4	44.5	56.4

GEORGETOWN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	48.0	42.0	56.5	55.0	66.7	75.8	85.5	79.8	78.9	63.7	62.8	43.0	63.1
1874	47.1	43.3	43.5	56.7	65.0	73.0	81.6	77.2	79.0	63.5	50.8	46.5	60.8
1875	44.7	50.6	54.9	65.0	70.4	72.6	83.4	81.4	77.7	73.2	53.3	57.7	65.4
1876	45.0	51.8	50.8	58.5	67.2	80.5	81.0	78.0	75.5	65.4	68.0	63.8	65.5
1877	56.8	61.0	61.3	61.2	63.4	77.3	81.1	80.7	77.8	66.1	58.7	55.3	66.7
1878	50.4	48.7	56.3	60.8	68.1	78.5	81.4	83.2	75.7	71.2	62.9	53.6	65.9
1879	47.2	57.1	56.7	60.0	60.1	76.7	79.9	84.2	79.2	67.3	57.7	47.5	64.5
1880	50.8	49.5	50.5	50.1	61.5	75.9	83.6	82.2	82.4	74.8	59.3	49.6	64.4
1881	51.4	53.9	59.7	65.3	70.0	70.4	81.5	79.7	76.1	60.6	55.4	48.7	64.4
1882	42.9	42.9	50.5	55.6	67.9	72.0	84.2	83.1	75.6	61.5	55.1	55.4	62.2
1883	50.8	51.4	61.5	57.9	63.8	81.5	87.0	82.6	81.6	61.4	59.8	54.8	66.7
1884	51.3	50.6	51.6	55.4	68.6	67.2	77.4	82.0	74.2	65.7	63.1	48.5	63.0
1885	52.8	59.0	66.1	60.7	69.3	67.7	77.8	83.5	79.4	69.0	53.1	55.1	66.1
1886	49.6	61.5	52.9	56.5	67.5	78.8	82.6	83.6	78.3	60.6	58.3	......	......

Mean monthly and annual temperature at stations in California—Continued.

GEORGETOWN, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	51.8	44.6	65.8	60.4	68.6	76.7	81.9	79.3	76.4	73.0	60.2	49.6	65.7
1888	38.0	48.1	46.8	46.2	58.3	63.3	75.8	77.7	[77.4]	62.2	51.8	46.9	[57.7]
1889	43.2	[50.4]	[54.9]	54.8	58.6	69.2	75.5	74.9	71.0	56.3	51.6	39.8	[58.4]
1890	33.6	40.4	45.5	54.2	59.4	63.4	......	......	......	......	......	......	......
Means	47.5	50.4	54.9	57.5	65.4	73.5	81.4	80.8	77.4	65.6	57.8	51.0	63.6

GILROY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	......	......	......	46.0	......
1874	46.5	46.5	49.0	57.3	66.8	72.4	71.6	68.5	66.4	57.7	57.2	39.9	58.3
1875	43.3	45.2	48.4	63.6	75.5	70.2	77.3	68.6	63.8	63.3	52.3	48.1	60.0
1876	43.2	46.0	52.9	60.8	63.7	68.9	68.4	67.1	65.8	61.9	54.7	48.8	58.5
1877	51.3	54.8	59.1	59.0	61.8	69.4	71.1	67.7	69.5	58.0	52.5	47.9	60.2
1878	49.3	49.8	54.4	57.4	63.0	64.1	66.3	66.4	65.6	61.9	53.9	45.3	58.1
1879	44.6	53.2	56.6	58.5	60.6	66.4	66.4	68.1	65.8	60.9	50.6	45.0	58.1
1880	43.7	44.1	46.8	53.7	60.2	63.5	64.3	64.8	63.6	59.4	47.0	50.7	55.2
1881	49.0	53.3	54.2	59.8	61.4	65.1	68.6	65.6	66.8	58.6	49.1	48.1	58.3
1882	43.7	43.8	55.3	55.1	61.7	63.9	66.5	66.8	64.5	58.4	52.1	48.0	56.6
1883	43.2	45.6	55.4	55.1	60.8	68.9	72.0	68.5	69.6	60.2	49.8	47.3	58.0
1884	46.5	48.4	54.1	56.8	63.0	65.2	71.1	69.9	65.6	60.0	53.8	49.6	58.7
1885	50.0	52.5	58.6	59.5	65.1	65.1	69.0	69.6	68.4	63.4	55.0	50.8	60.6
1886	48.7	55.5	55.9	58.6	62.7	69.3	72.5	71.5	65.3	57.9	51.5	53.2	60.2
1887	47.7	46.8	56.5	56.9	62.4	66.6	65.0	63.7	67.9	64.1	52.7	46.3	58.0
1888	44.8	51.1	52.3	62.0	61.8	71.9	71.4	74.1	70.8	61.7	55.4	51.4	60.7
1889	46.0	49.5	56.7	61.3	63.7	67.1	68.6	69.1	67.8	61.1	54.8	48.7	59.5
1890	43.8	47.7	54.1	58.3	63.7	65.2	......	......	......	......	......	......	......
Means	46.2	49.0	54.1	58.5	63.4	67.2	69.4	68.1	66.7	60.5	52.6	47.9	58.6

GIRARD, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	41.8	49.3	52.0	55.8	63.5	75.9	79.0	77.2	69.2	60.3	50.5	42.7	59.8
1890	34.1	41.9	45.8	53.3	60.8	64.5	......	......	......	......	......	......	......
Means	38.0	45.6	48.9	54.6	62.2	70.2	79.7	77.2	69.2	60.3	50.5	42.7	58.3

GLEN ELLEN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	46.3	48.7	55.1	58.9	62.4	64.6	67.7	67.7	66.1	59.6	55.0	48.1	58.4
1890	43.2	47.4	52.0	57.8	62.7	65.5	......	......	......	......	......	......	......
Means	44.8	48.0	53.6	58.4	62.6	65.0	67.7	67.7	66.1	59.6	55.0	48.1	58.0

GOSHEN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	79.3	81.7	91.7	86.2	79.0	75.7	56.1	52.9	......
1876	51.2	55.6	60.8	[63.8]	84.2	88.5	82.4	[87.0]	80.0	73.0	56.4	60.2	[70.2]
1877	59.1	63.8	67.3	69.8	74.8	......	......	......	......	......	......	......	......
1879	[46.3]	56.3	60.4	63.0	63.6	81.8	84.1	86.8	96.9	62.4	54.6	45.7	[66.8]
1880	41.1	43.5	48.2	57.5	65.5	77.8	85.1	84.4	83.6	68.7	50.4	41.1	62.2
1881	46.2	49.9	53.8	61.4	76.5	78.3	84.7	84.7	76.4	63.3	51.6	45.8	64.4
1882	41.8	43.5	53.2	[63.8]	78.4	77.7	90.3	90.6	78.0	63.3	50.6	48.0	[64.9]
1883	41.8	46.7	63.4	59.9	68.7	72.3	89.9	86.2	83.6	63.8	52.3	45.5	64.5
1884	47.8	53.1	56.3	59.4	70.0	71.1	85.5	88.8	77.2	62.2	54.8	48.9	64.6
1885	47.1	52.2	58.6	64.8	73.5	78.1	82.0	88.5	81.0	71.8	54.3	50.1	66.8
1886	47.3	52.7	51.4	61.8	74.1	84.3	88.9	88.7	77.5	61.4	48.3	47.4	65.3
1887	46.1	47.1	63.7	64.3	73.2	85.6	88.7	85.3	82.4	71.3	57.5	44.4	67.5
1888	44.6	54.1	52.3	70.9	74.6	80.7	88.8	90.3	85.8	70.7	58.8	49.0	68.4
1889	44.6	53.2	56.0	68.7	76.9	90.7	88.9	83.5	75.7	66.7	53.3	48.3	67.2
1890	43.6	46.9	54.9	63.5	70.1	76.5	......	......	......	......	......	......	......
Means	46.3	51.3	57.2	63.8	73.6	80.4	87.0	87.0	81.3	67.3	53.8	48.3	66.4

Mean monthly and annual temperature at stations in California—Continued.

GREEN VALLEY (NEAR CORDELIA), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	......	53.0	......
1887	48.1	45.2	57.6	58.9	65.8	71.6	70.4	70.4	70.9	69.4	58.4	51.1	61.5
Means	48.1	45.2	57.6	58.9	65.8	71.6	70.4	70.4	70.9	69.4	58.4	52.0	61.6

GUADALOUPE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	......	......	......	59.9	54.4	58.2	......
1886	54.4	60.6	52.4	56.9	59.9	59.4	61.4	62.0	62.3	61.6	55.5	56.0	58.5
1887	59.6	54.6	61.6	59.9	58.4	61.8	64.0	63.4	61.6	......	......	......	......
Means	57.0	57.6	57.0	58.4	59.2	60.6	62.7	62.7	62.0	60.8	55.0	57.1	59.2

HAYWARDS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	......	......	46.1	......
1890	42.1	45.0	49.8	53.5	61.5	61.6	......	......	......	......	......	......	......
Means	42.1	45.0	49.8	53.5	61.5	61.6	......	......	......	......	......	46.1	......

HOLLISTER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	......	......	......	46.1	......
1874	46.3	48.5	51.4	57.0	60.9	66.6	68.3	68.7	68.6	60.5	56.6	50.4	58.6
1875	46.9	53.4	52.3	65.1	77.0	76.4	72.7	74.9	75.0	68.6	57.0	[51.0]	[64.2]
1876	45.5	48.1	49.2	61.9	67.5	74.4	69.7	70.7	68.1	62.3	58.3	47.7	60.3
1877	54.0	55.4	59.9	61.5	65.2	73.0	69.0	66.9	69.4	64.9	56.8	50.7	62.2
1878	50.3	57.4	54.3	55.9	63.6	62.8	64.3	62.8	64.4	59.9	54.3	46.9	58.1
1879	46.3	54.2	57.2	57.4	58.6	63.4	65.3	68.9	65.5	61.3	53.3	48.4	58.3
1880	45.6	46.5	49.7	55.1	61.7	61.6	62.9	63.5	62.8	59.2	51.9	52.8	56.1
1881	51.2	55.3	57.5	60.4	61.3	64.2	65.4	64.9	64.3	57.0	50.4	49.3	58.4
1882	50.0	49.8	55.3	59.2	61.0	60.0	66.0	66.9	64.9	58.7	51.4	51.6	57.9
1883	47.4	49.8	54.9	55.5	61.4	67.1	66.0	67.3	66.3	57.6	51.6	50.8	58.0
1884	49.6	53.3	53.1	56.0	62.9	67.4	70.6	69.5	66.2	61.6	57.3	52.4	60.0
1885	52.4	55.9	59.3	60.7	66.2	66.0	68.8	67.4	68.2	64.8	58.0	55.7	62.0
1886	49.7	55.3	53.1	58.7	64.7	68.0	71.3	73.3	68.3	63.3	53.8	52.1	61.0
1887	51.9	49.0	59.8	59.4	65.5	68.0	64.9	62.4	65.0	62.1	56.1	52.2	59.7
1888	47.6	54.3	54.9	60.9	61.3	67.9	68.4	68.4	63.7	59.0	53.9	53.5	59.5
1889	47.6	48.1	58.7	64.0	65.1	61.7	68.8	68.5	69.6	61.4	57.0	56.1	60.6
1890	49.9	55.6	57.9	59.5	66.1	66.0	......	......	......	......	......	......	......
Means	49.0	52.3	55.2	59.3	64.1	66.7	67.6	67.8	66.9	61.4	54.9	51.0	59.7

HORNBROOK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	22.0	41.3	47.0	58.5	63.9	66.0	70.9	......	73.1	57.6	......	41.6	......
1889	33.2	40.3	48.6	56.3	63.4	75.8	79.9	74.4	66.0	54.7	44.1	35.9	56.0
1890	27.4	36.6	48.8	......	62.7	62.9	......	......	......	......	......	......	......
Means	27.5	39.4	48.1	57.4	63.3	68.2	75.4	74.4	69.6	56.2	44.1	38.8	55.2

HUMBOLDT, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1854	40.8	45.3	47.4	54.1	53.9	58.0	56.7	57.9	57.0	53.0	48.6	45.7	51.5
1855	45.5	50.0	52.6	53.4	57.6	59.2	[58.1]	58.8	59.8	58.9	50.9	46.2	[54.2]
1856	51.0	50.6	53.2	54.5	57.1	60.0	60.4	59.7	57.0	52.4	58.8	44.3	54.9
1857	48.3	46.8	51.6	55.5	55.9	60.2	[58.1]	57.0	57.8	55.8	50.5	48.6	[53.8]
1858	45.5	49.9	49.1	50.7	54.6	57.7	56.6	57.5	56.6	52.2	50.6	44.6	52.1
1859	54.2	47.2	46.0	49.2	53.0	57.8	57.9	58.8	56.9	53.1	49.2	44.5	52.3

***Mean monthly and annual temperature at stations in California*—Continued.**

HUMBOLDT, FORT, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	44.7	45.3	46.6	49.2	58.0	55.0	57.5	58.1	58.1	54.2	50.4	48.3	52.1
1861	47.4	47.4	48.4	51.3	52.2	56.7	57.0	57.9	56.7	52.7	[51.2]	[46.2]	[52.1]
1862							57.3	58.2	58.8	55.4	50.3	48.6	
1863	46.9	47.2	48.5	50.5	54.0	57.6	59.7	57.2	59.8	53.6	49.7	49.6	52.9
1864	50.3	48.2	51.2	53.3	56.0	59.6	58.4	[58.2]	59.1	54.9	49.9	50.3	[54.1]
1865	46.5	45.1	47.0	49.8	56.9	57.4	58.4	58.0	56.8	54.0	54.2	43.3	52.3
1866	46.0	47.3	48.7	50.1					54.9	52.1	51.6		
1869												39.6	
Means	47.3	47.5	49.2	51.8	55.4	58.1	58.0	58.1	57.6	54.0	51.2	46.1	52.9

HYDESVILLE, CAL.

1883												46.3	
1884	46.2	44.4	48.5	51.7	55.8	59.0	58.4	59.8	57.6	55.6	54.5	[47.1]	[53.2]
1885	48.8	50.3	51.7	52.5		56.9							
1888				52.1	55.0	60.2	60.4	60.5	61.3	55.7	50.2	51.0	
1889	44.4	47.2	52.5	[52.6]	56.6	57.8	58.9	58.4	58.6	56.2	52.6	44.0	[53.3]
1890	39.4	43.4	44.2	54.2	56.7	56.3							
Means	44.7	46.3	49.2	52.6	56.0	58.0	59.2	59.6	59.2	55.8	52.4	47.1	53.3

INDEPENDENCE, CAMP, CAL.

1862											45.9	38.4	
1863	36.8	42.7	55.4	63.8	74.1	81.3	85.8						
1864		30.7	36.0	43.0	58.5		74.7						
1865											50.3	33.5	
1866	36.6	46.7	53.7	59.6					75.7		49.1		
1867	38.2	40.1	42.8	62.5	70.5	78.0	85.4	83.1	[71.7]	[59.2]	[48.2]	44.8	[60.4]
1868	34.4	42.5	51.9	59.2	59.9	70.5	80.0	79.6	71.1	60.3	46.8	41.4	58.1
1869	38.0	41.0	51.4	56.8	64.1	77.7	80.2	78.6	71.4	58.1	49.0	39.6	58.8
1870	43.3	45.3	45.4	57.5	[65.4]	73.1	80.0	77.2	68.7	59.1	47.2	36.6	[58.2]
1871	38.5	39.7	50.3	55.3	64.8	74.1	78.4	78.3	70.6	57.3	46.7	43.4	58.1
1872	39.1	44.1	48.6	51.5	65.7	73.7	75.6	78.3	67.7	59.7	43.3	40.4	57.3
1873	43.8	40.0	53.5	54.5	61.0	74.0	79.9	75.7	70.1	56.2	52.3	27.4	57.4
1874	33.3	40.0	44.2	54.6	64.0	73.6	80.7	73.7	68.6	55.2	43.7	38.6	55.8
1875	40.3	43.6	47.4	59.8	70.5	74.8	81.5	79.1	67.7	62.0	48.5	43.9	59.9
1876	34.1	44.2	47.2	60.2	66.0	77.7	76.3	72.6	66.2	59.6	47.6	44.0	58.0
1877	41.5	46.2	55.1	50.1	58.2	74.2							
Means	38.3	41.9	48.8	56.3	64.8	75.2	79.9	77.6	70.0	58.7	47.6	39.3	58.2

INDIAN VALLEY, CAL.

1870											50.6	39.2	
1871	39.0	42.2	47.8	52.5	57.6	72.4	74.3	76.0	65.8	59.0	41.6	32.7	55.1
1872	32.2	40.6	46.8	45.0	62.8	67.4	74.9	72.4	63.3	58.6	40.1	37.7	53.5
1873	37.4	32.8	41.7	47.5	47.1	54.2							
Means	36.2	38.5	45.4	48.3	55.8	64.7	74.6	74.2	64.6	58.8	44.1	36.5	53.5

INDIO, CAL.

1877										72.0	65.4	55.5	
1878	53.7	61.2	69.0	71.1	80.1	83.4	92.5	94.7	86.8	76.7	61.1	53.2	74.0
1879	50.2	64.8	72.9	75.5	81.4	90.6	97.0	98.1	92.8	76.6	60.0	52.3	76.0
1880	54.3	52.7	59.9	69.8	82.2	91.2	94.1	96.0	89.9	75.5	57.9	55.9	73.3
1881	52.5	64.6	68.2	77.6	82.8	89.8	97.1	93.8	86.1	73.1	57.9	58.9	75.2
1882	47.2	54.4	65.3	72.6	81.3	87.2	95.1	92.8	84.7	74.5	61.5	59.6	73.0
1883	46.2	56.4	67.9	70.8	78.6	82.8	94.1	91.1	86.8	74.6	63.8	60.9	72.8
1884	52.3	56.4	61.7	67.9	76.0	82.5	93.3	91.7	82.1	74.6	62.6	61.9	71.9
1885	52.3	61.4	64.1	73.4	83.6	83.0	92.7	94.7	88.6	79.2	64.3	57.6	74.6
1886	54.3	[59.0]	62.9	71.1	88.8	92.5	96.5	90.6	83.9	74.4	63.4	62.2	[75.0]

***Mean monthly and annual temperature at stations in California*—Continued.**

INDIO, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	54.1	59.5	76.6	72.8	79.4	90.0	95.7	94.7	87.9	74.9	62.9	54.1	75.2
1888	47.8	[59.0]	62.3	75.6	74.2	89.7	96.9	95.4	93.6	[75.2]	65.0	55.7	[74.2]
1889	[51.3]	56.8	63.1	74.2	79.5	88.7	96.4	97.4	88.0	75.7	61.5	58.9	[74.3]
1890	50.6	60.8	63.8	75.5	83.7	88.3	......	......	......	......	......	......	......
Means	51.3	59.0	66.0	72.9	80.9	88.1	95.1	94.2	87.6	75.2	62.1	57.4	74.2

IONE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	80.0	76.2	73.4	63.3	54.7	49.5	......
1878	50.6	52.3	57.3	59.3	67.2	77.3	79.5	79.5	72.9	64.5	55.7	45.7	63.5
1879	45.2	54.1	56.6	58.9	61.5	80.3	82.4	84.8	78.2	66.7	54.3	47.1	64.2
1880	43.0	44.9	50.5	53.3	63.1	76.8	82.5	81.3	79.0	67.7	50.3	50.4	61.9
1881	50.3	54.0	56.5	63.2	68.1	74.9	86.4	81.4	76.3	64.8	55.0	48.8	65.0
1882	45.1	48.5	53.5	57.0	66.7	72.4	79.0	79.5	73.7	63.4	54.6	52.2	62.1
1883	43.6	46.4	62.9	56.9	62.8	72.3	76.6	75.7	75.8	65.2	55.2	49.6	61.9
1884	52.4	53.2	55.9	66.7	69.7	68.7	75.6	82.2	70.1	62.9	53.2	50.0	63.4
1885	48.0	52.9	58.2	61.0	65.9	67.1	78.2	80.7	73.9	62.7	57.6	49.5	63.0
1886	46.2	53.1	47.9	55.2	65.7	77.4	77.5	76.0	67.4	54.7	47.1	49.8	59.8
1887	44.8	44.9	54.9	57.6	63.7	73.4	76.3	75.6	71.9	61.1	50.6	45.1	60.0
1888	42.6	50.6	50.5	61.3	65.4	75.1	80.6	82.3	78.5	67.1	59.9	58.2	62.7
1889	46.6	46.4	54.0	62.8	67.9	73.9	77.2	75.3	72.2	62.6	49.5	49.1	61.5
1890	41.1	44.1	49.5	53.9	65.1	68.6	......	......	......	......	......	......	......
Means	46.1	49.6	54.5	59.0	65.6	73.7	79.4	79.3	74.1	63.6	52.1	49.6	62.2

IOWA HILL (STRAWBERRY FLAT), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	......	......	26.0	32.9	38.5	......	......	......	......	......	......	38.5	......
1881	35.4	35.4	32.7	39.1	40.1	41.7	......	......	......	......	......	......	......
1882	30.4	26.6	30.9	33.4	37.1	......	......	......	......	39.3	32.6	36.1	......
1883	25.6	26.8	32.5	30.8	38.1	......	......	......	......	......	......	......	......
1884	18.5	34.8	38.8	......	47.7	50.5	......	......	......	......	......	......	......
1885	39.7	42.3	55.9	45.1	51.6	48.7	......	......	......	......	45.2	44.3	......
1886	39.6	47.6	36.1	41.6	49.1	......	......	......	......	......	42.9	45.8	......
1887	40.7	32.1	43.9	43.8	49.7	[57.7]	[76.4]	62.6	58.5	56.4	47.3	39.2	[50.7]
1888	27.1	49.1	48.5	60.9	61.1	63.9	75.6	78.4	77.2	64.6	52.5	[40.8]	[58.3]
1889	......	......	......	......	60.4	74.3	77.3	76.8	72.1	57.9	40.0	41.1	......
1890	34.9	40.8	45.9	55.4	62.9	67.1	......	......	......	......	......	......	......
Means	32.4	37.3	39.1	42.6	48.7	57.7	76.4	72.6	69.3	54.6	43.4	40.8	51.2

JONES, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1853	35.1	38.0	42.0	47.1	55.9	64.4	72.0	[72.0]	[65.2]	53.7	42.7	33.4	[51.8]
1854	31.4	35.0	41.2	51.0	53.6	58.8	71.1	68.7	62.7	50.0	40.9	31.6	49.7
1855	27.7	39.4	46.2	49.7	54.6	67.7	[72.7]	72.6	[65.7]	[51.3]	37.4	29.0	[51.2]
1856	34.8	38.8	49.2	49.8	58.6	69.6	75.9	75.2	70.3	48.6	38.3	27.6	53.1
1857	31.0	35.8	44.8	58.9	61.6	68.5	[73.5]	73.1	63.5	52.0	40.7	37.2	[53.4]
1858	32.5	41.1	44.6	55.0	59.7	74.0	......	......	......	......	......	......	......
Means	32.1	38.0	44.7	51.9	57.3	67.2	73.0	72.3	65.5	51.1	40.0	31.8	52.1

KEELER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	......	65.6	77.1	82.9	93.5	91.1	84.8	67.9	57.5	41.8	......
1885	[39.2]	52.5	54.3	57.8	68.0	69.7	80.1	81.0	74.1	64.4	51.7	45.4	[61.5]
1886	42.8	50.8	47.5	55.6	68.4	75.8	79.9	81.5	74.1	58.2	45.1	44.7	60.4
1887	43.1	40.0	56.5	57.4	66.7	73.9	81.1	79.7	72.3	63.4	52.2	42.9	60.8
1888	35.3	47.8	50.6	63.4	66.4	73.9	80.2	80.7	78.3	65.2	49.8	42.8	61.2
1889	39.0	46.9	53.6	62.4	68.8	78.9	83.8	82.7	74.9	61.6	50.2	44.8	62.3
1890	36.0	42.1	52.0	59.4	69.0	73.2	......	......	......	......	......	......	......
Means	39.2	46.7	52.4	60.2	69.2	75.5	83.1	82.8	76.4	63.4	51.1	43.7	62.0

***Mean monthly and annual temperature at stations in California*—Continued.**

KEENE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	78.1	70.4	67.5	56.0	47.7	43.9	......
1878	46.1	49.6	52.3	53.9	59.0	62.6	70.1	75.1	71.1	63.0	54.1	44.1	58.4
1879	40.8	50.7	54.2	55.9	60.3	75.1	76.9	80.0	[68.8]	66.5	49.8	41.1	[60.0]
1880	41.7	41.8	46.6	53.6	62.9	73.8	78.7	71.2	71.1	66.4	49.1	49.4	58.9
1881	48.3	51.2	52.8	62.1	60.0	72.2	78.3	74.7	68.1	53.2	49.5	48.3	59.9
1882	42.5	40.8	50.7	53.3	61.6	68.7	78.7	78.0	61.6	52.4	45.0	42.8	56.3
1883	37.5	38.8	49.7	46.9	55.1	67.3	73.4	71.9	69.5	50.7	45.1	45.1	54.2
1884	42.7	41.2	45.1	50.5	60.1	67.2	75.9	74.2	59.3	55.6	52.5	42.0	55.5
1885	45.9	45.1	53.2	54.9	62.3	64.6	74.5	77.8	71.5	63.3	54.2	52.6	60.0
1886	49.7	58.4	51.3	56.6	67.8	76.6	80.9	80.8	73.7	58.5	52.2	49.1	63.0
1887	45.6	41.5	52.0	50.7	60.5	67.1	75.5	64.2	64.7	62.5	55.0	43.4	56.9
1888	41.1	47.5	50.5	60.7	63.5	68.5	75.5	77.0	76.3	61.7	50.8	48.9	60.2
1889	41.6	45.0	53.1	55.9	62.6	76.5	79.3	76.0	71.5	60.5	53.4	44.8	60.0
1890	38.4	42.6	49.4	55.4	66.9	70.2	......	......	......	......	......	......	......
Means	43.2	45.7	50.8	54.6	61.7	70.0	76.6	74.7	68.8	59.3	50.6	45.8	58.5

KINGSBURGH, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	[45.7]	56.1	58.2	64.4	67.1	78.0	82.5	86.5	80.6	69.8	56.4	47.1	[66.0]
1880	44.5	46.9	49.4	56.1	65.1	78.8	86.6	85.5	80.2	70.9	51.8	55.6	64.3
1881	49.2	53.4	54.7	64.6	71.5	75.4	84.9	83.1	74.4	60.6	48.6	47.9	64.0
1882	41.7	48.1	57.4	59.4	75.3	79.8	87.7	88.8	77.8	63.3	49.6	47.4	64.7
1883	41.1	46.8	60.6	61.8	68.6	84.2	86.8	84.0	79.8	67.6	61.2	57.9	66.7
1884	56.2	53.5	56.4	61.7	71.5	75.8	83.6	84.7	72.2	66.0	60.9	51.0	66.1
1885	51.6	56.8	59.4	61.5	71.5	73.4	81.4	84.5	77.9	65.6	54.1	48.0	65.5
1886	46.9	53.5	52.3	59.9	69.8	80.5	83.6	83.5	73.2	56.4	46.2	45.9	62.6
1887	44.3	45.4	59.6	61.1	69.5	77.4	81.5	80.7	75.7	64.3	52.3	43.0	63.2
1888	41.3	48.5	52.7	70.2	67.9	74.7	84.4	86.2	82.1	[65.0]	55.2	48.8	[64.8]
1889	42.8	49.7	61.4	68.2	75.7	85.8	87.9	82.7	77.8	65.4	53.9	51.0	66.9
1890	43.3	43.2	51.0	65.3	73.8	75.9	......	......	......	......	......	......	......
Means	45.7	50.2	56.1	62.8	70.6	78.3	84.9	84.6	77.4	65.0	53.7	49.4	64.9

KING'S CITY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	62.0	53.8	52.7	......
1887	49.7	44.6	61.4	58.9	65.6	66.4	69.4	64.8	64.8	62.4	54.6	44.4	58.9
1888	44.2	48.2	47.1	55.3	63.9	68.7	70.1	68.1	68.1	61.8	55.1	52.3	58.6
1889	46.0	48.4	52.6	54.2	63.4	62.7	62.0	65.4	72.0	55.7	52.7	48.6	57.0
1890	41.5	44.8	50.6	56.2	64.1	64.1	......	......	......	......	......	......	......
Means	45.4	46.5	52.9	56.2	64.2	65.5	67.2	66.1	68.3	60.5	54.0	49.5	58.0

KNIGHT'S LANDING, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	[47.6]	53.5	57.2	61.2	68.2	75.3	77.1	75.3	69.5	65.0	56.1	45.5	[62.6]
1879	43.5	53.2	56.6	62.2	63.1	75.6	75.4	79.1	73.1	66.0	52.7	47.2	62.3
1880	45.5	47.0	49.6	56.2	65.0	72.5	76.1	75.5	72.5	64.5	51.3	51.6	60.6
1881	50.6	55.5	57.5	56.7	69.4	71.6	77.8	74.6	71.9	58.1	53.5	45.1	61.9
1882	45.1	47.3	53.7	59.6	68.1	65.8	81.1	77.7	71.9	58.3	50.4	49.9	60.7
1883	43.0	47.7	62.1	[59.8]	66.8	80.8	81.2	77.8	74.7	60.5	52.6	47.2	[62.8]
1884	49.4	47.7	54.0	58.0	67.2	70.6	75.0	76.5	67.6	63.0	58.9	52.1	61.7
1885	50.7	52.6	58.7	63.9	67.3	69.7	77.5	81.7	73.2	68.2	58.6	57.1	64.9
1886	54.6	56.2	57.0	62.4	69.0	76.4	81.7	79.9	71.2	60.9	53.8	56.3	65.0
1887	54.8	45.8	48.3	53.1	61.3	69.1	73.7	72.8	67.5	65.7	56.8	46.3	59.6
1888	41.3	50.5	51.0	60.3	66.3	67.2	74.3	[77.2]	74.0	64.5	53.6	48.8	[60.8]
1889	43.9	47.0	55.0	62.6	64.1	68.3	71.2	78.4	76.1	63.6	60.2	51.7	61.8
1890	48.4	52.9	57.3	60.8	66.9	70.5	......	......	......	......	......	......	......
Means	47.6	50.5	55.2	59.8	66.4	71.8	76.8	77.2	71.9	63.2	54.9	49.9	62.1

***Mean monthly and annual temperature at stations in California*—Continued.**

LA GRANGE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	[43.9]	46.5	55.3	59.0	66.8	[74.5]	83.4	79.5	75.2	59.5	53.0	[50.0]	[62.2]
1888	43.9	50.0	55.1	66.1	66.4	72.3	77.1	82.8	66.5	68.8	54.6	49.8	62.8
1889	45.6	50.8	60.3	62.9	68.5	79.6	81.5	83.5	76.0	64.4	54.9	50.1	64.8
1890	42.3	45.9	54.3	59.8	68.6	71.6	......	......	......	......	......	......	....
Means	43.9	48.3	56.2	62.0	67.6	74.5	80.7	81.9	72.6	64.2	54.2	50.0	63.0

LATHROP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	76.0	73.8	72.5	57.1	57.3	46.6	....
1878	48.4	49.7	54.4	57.7	63.1	71.3	75.0	72.4	66.4	58.8	52.3	41.9	59.3
1879	44.0	53.2	55.3	60.5	61.2	73.8	74.1	75.9	70.2	59.8	49.7	45.0	60.2
1880	40.5	41.6	49.3	58.0	66.9	73.2	78.3	76.3	68.9	63.1	49.5	48.6	59.5
1881	47.9	55.8	54.9	62.2	65.6	67.5	75.6	66.8	68.4	56.4	[illegible]	47.1	59.5
1882	46.0	44.6	54.5	57.1	67.5	61.6	77.4	76.4	73.5	61.0	48.4	47.4	59.6
1883	41.6	44.4	[54.5]	55.1	62.3	[70.0]	70.1	66.6	65.7	60.1	53.6	39.8	[57.0]
1884	43.5	47.8	52.4	57.9	63.6	64.8	69.6	71.6	73.0	57.6	49.9	46.3	58.2
1885	46.5	53.5	58.2	61.4	65.7	66.1	71.2	75.2	73.0	63.2	55.3	50.2	61.6
1886	47.3	54.3	53.3	57.1	64.5	72.1	74.6	75.4	68.2	57.3	47.7	48.9	60.1
1887	46.4	44.6	56.9	57.9	65.7	72.8	74.9	71.9	70.3	63.2	52.1	46.6	60.3
1888	44.9	52.6	53.3	61.3	65.7	72.6	75.4	75.3	71.1	61.8	54.7	47.8	61.6
1889	44.1	51.5	56.4	60.3	63.7	69.2	75.8	72.0	71.6	63.3	56.0	51.9	61.3
1890	43.1	50.7	54.7	59.9	71.4	75.4	......	......	......	......	......	......	....
Means	44.9	49.6	54.5	59.2	65.1	70.0	74.5	73.0	70.2	60.2	51.7	46.8	60.0

LAUREL, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	70.1	68.8	62.9	54.7	53.0	....
1889	48.1	51.7	55.5	60.2	61.9	66.1	70.1	68.6	69.7	61.1	59.7	49.1	60.2
1890	43.3	47.9	54.1	58.3	62.8	65.2	......	......	......	......	......	......	....
Means	45.7	49.8	54.8	59.2	62.4	65.6	70.1	69.4	69.2	62.0	57.2	51.0	59.7

LEMOORE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	[45.3]	54.0	60.3	63.4	65.2	80.3	81.8	83.6	74.5	64.9	48.6	42.5	[63.7]
1880	42.1	42.7	47.8	57.8	68.6	74.9	88.3	76.9	78.7	64.0	44.2	47.3	61.1
1881	46.2	56.7	58.8	71.1	73.4	79.0	89.4	87.2	82.2	61.8	50.7	48.3	67.1
1882	43.9	45.7	47.0	55.9	72.7	75.4	86.7	86.0	74.9	58.0	50.9	47.1	62.0
1883	41.8	48.4	57.0	53.6	64.8	78.1	82.9	80.7	78.1	58.9	52.4	44.1	61.7
1884	52.1	46.6	51.9	56.1	71.6	72.7	81.1	85.9	[76.7]	63.7	53.2	45.7	[63.1]
1885	46.7	50.8	59.3	63.6	72.4	71.8	81.1	83.5	76.9	62.5	54.6	51.0	64.5
1886	48.8	54.8	51.7	61.2	71.3	79.2	80.2	82.1	70.5	57.7	45.6	49.8	62.7
1887	46.9	49.3	62.9	61.0	69.6	78.1	84.0	79.8	73.7	70.9	55.4	45.0	64.7
1888	43.8	50.6	53.6	66.8	65.2	74.6	52.8	83.4	82.8	66.0	52.7	46.9	64.1
1889	41.7	56.2	62.5	67.8	74.9	84.4	85.9	83.6	75.1	66.8	59.7	53.8	67.7
1890	44.1	55.0	57.2	64.5	71.1	76.1	......	......	......	......	......	......	....
Means	45.3	50.9	55.8	61.9	70.1	77.0	84.0	83.0	76.7	63.2	51.6	47.4	63.9

LEWIS CREEK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	53.9	51.3	52.3	64.1	73.3	......	......	......	......	......	......	......	....
1879	[44.6]	57.2	62.1	64.7	66.8	79.4	82.3	84.6	78.1	65.2	52.2	46.1	[65.5]
1880	43.8	46.2	49.9	58.9	68.1	77.7	84.0	81.1	77.0	[61.7]	49.7	50.3	[62.4]
1881	47.8	54.1	55.1	65.5	71.7	75.0	79.8	71.2	71.8	58.0	48.7	47.7	62.2
1882	43.1	45.0	54.3	[63.5]	70.3	77.1	86.8	[81.9]	75.1	57.7	46.1	43.9	[62.1]
1883	38.9	......	......	......	......	......	......	......	......	......	......	......	....
1886	......	......	......	......	......	......	......	......	......	......	54.7	52.0	....
1887	50.0	48.0	62.9	61.9	71.2	81.3	86.2	[81.9]	78.3	[61.7]	58.4	48.0	[65.8]

Mean monthly and annual temperature at stations in California—Continued.

LEWIS CREEK, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	46.4	55.0	56.1	......	......	77.6	......	86.0	......	......	......	......	......
1889	45.3	51.6	60.2	66.9	73.5	84.0	88.0	86.7	80.0	66.0	55.9	49.5	67.3
1890	42.0	47.0	54.8	62.6	71.4	75.9	......	......	......	......	......	......	......
Means	44.6	50.6	56.4	63.5	70.8	78.5	84.5	81.9	76.7	61.7	52.2	48.2	64.1

LINCOLN, CAMP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	......	......	......	......	......	......	......	......	57.6	55.0	50.7	50.2	......
1867	48.4	44.4	43.7	50.4	54.6	58.2	62.2	58.2	60.0	54.2	52.4	47.9	52.9
1868	40.8	46.9	46.6	50.8	55.7	57.3	61.8	59.4	57.5	57.1	51.5	49.9	52.9
1869	48.0	48.2	53.7	63.6	64.1	......	......	......	......	......	......	......	......
Means	45.7	46.5	48.0	54.9	58.1	57.8	62.0	58.8	58.4	55.4	51.5	49.3	53.9

LINDEN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	......	50.7	......
1887	47.5	46.0	59.2	59.7	66.0	75.0	74.2	73.0	72.0	66.0	51.5	45.0	61.3
1888	43.5	50.5	52.0	61.0	62.0	66.0	......	......	......	......	......	......	......
Means	45.5	48.2	55.6	60.4	64.0	70.5	74.2	73.0	72.0	66.0	51.5	47.8	60.7

LIVERMORE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	71.5	67.5	64.5	56.1	49.1	......
1871	50.0	52.9	52.5	59.8	63.2	75.9	79.0	77.9	80.2	68.4	52.7	49.6	63.5
1872	48.7	54.5	52.3	54.7	61.9	65.2	68.2	70.0	71.4	66.2	58.2	49.6	60.1
1873	49.4	48.2	49.8	52.7	62.2	68.0	72.2	70.4	69.8	67.7	54.9	44.3	59.1
1874	49.5	47.7	51.2	56.4	64.1	71.8	75.5	73.8	76.6	60.5	58.9	51.6	61.5
1875	52.1	56.8	53.8	64.2	71.6	70.8	72.9	73.9	72.4	70.3	57.8	52.8	64.1
1876	48.3	47.7	50.6	55.6	64.2	75.4	70.3	67.0	72.1	67.0	58.1	49.8	60.5
1877	52.5	53.3	58.4	57.3	60.7	73.3	77.4	69.5	71.7	64.8	59.0	53.6	62.6
1878	54.5	54.7	59.1	60.3	65.3	70.2	73.4	76.3	67.1	63.9	58.0	49.7	62.7
1879	52.1	59.9	60.2	62.0	61.7	72.2	72.6	77.6	73.7	65.6	57.7	49.8	63.8
1880	51.8	47.7	54.8	57.2	63.5	64.9	72.2	70.5	71.7	64.6	54.0	53.8	60.6
1881	54.2	56.0	55.7	63.3	65.4	67.0	72.8	68.1	68.5	61.6	55.4	[50.9]	[61.6]
1882	48.1	48.1	54.5	56.7	62.3	62.1	70.1	70.2	66.8	65.4	55.8	56.3	59.7
1883	47.9	45.2	56.3	55.6	61.9	71.0	69.7	68.4	69.5	59.7	44.6	51.2	58.4
1884	49.7	49.2	54.1	54.4	59.8	62.2	67.6	67.5	63.3	60.2	55.5	50.0	57.8
1885	54.4	55.5	55.9	56.4	59.2	57.1	54.4	65.7	64.6	60.6	54.4	51.2	57.4
1886	45.7	54.4	51.0	54.8	60.8	68.1	70.1	72.4	68.5	61.6	53.3	57.4	59.8
1887	52.1	45.7	57.3	56.1	60.5	65.9	66.3	66.4	67.1	66.4	57.3	52.5	59.5
1888	46.9	53.7	53.7	59.9	58.8	64.0	63.6	66.0	64.6	59.5	51.9	47.6	57.5
1889	45.6	52.8	57.2	59.0	62.3	64.9	66.8	67.8	68.0	62.4	53.8	46.9	59.0
1890	42.8	49.0	52.9	55.4	57.5	61.0	......	......	......	......	......	......	......
Means	49.8	51.6	54.6	57.6	62.3	67.6	70.3	70.5	69.8	64.0	55.4	50.9	60.4

LIVINGSTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	49.6	53.9	54.5	60.9	73.8	83.9	89.6	91.4	81.9	......	......	......	......
1887	53.6	52.9	66.1	65.5	73.9	81.2	84.8	79.1	79.1	70.2	60.9	49.6	68.1
1888	48.2	[51.5]	57.8	68.3	70.6	74.9	86.3	82.9	79.6	67.4	55.9	49.2	[66.0]
1889	46.6	52.3	59.6	63.9	71.2	80.2	82.1	82.5	76.5	61.5	55.1	52.0	65.3
1890	44.0	46.8	53.2	59.2	70.5	76.3	......	......	......	......	......	......	......
Means	48.4	51.5	58.2	63.6	72.0	79.3	85.7	84.0	79.3	66.4	57.3	50.3	66.3

Mean monthly and annual temperature at stations in California—Continued.

LODI (3 MILES SOUTH OF), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	45.2	46.3	53.4	55.6	64.7	67.4	72.0	72.9	69.6	60.2	49.5	48.5	58.8
1883	42.9	46.8	57.5	55.4	62.0	71.8	73.5	70.0	72.9	59.3	51.3	46.1	59.1
1884	46.9	48.2	53.7	57.0	63.8	65.2	70.9	72.9	65.7	62.3	56.1	48.8	59.3
1885	48.0	54.2	59.8	61.2	65.4	65.6	71.1	75.3	72.2	65.9	55.3	49.9	62.0
1886	47.6	54.3	53.3	57.4	63.5	70.8	74.2	74.9	70.1	59.6	51.6	51.1	60.7
1887	48.8	45.7	58.3	58.1	63.8	67.2	72.0	72.1	72.2	67.4	55.3	46.4	60.6
1888	44.2	52.4	54.4	62.8	64.7	69.5	74.7	75.8	75.4	66.3	55.6	50.4	62.2
1889	45.6	50.6	58.0	62.1	65.0	71.4	73.8	74.4	72.5	62.4	54.3	49.0	61.6
1890	42.9	......	......	......	......	......	......	......	......	......	......	......	......
Means	45.8	49.8	56.0	58.7	64.1	68.6	72.8	73.5	71.3	62.9	53.6	48.8	60.5

LOMPOC, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	......	......	......	......	......	......	......	......	......	......	51.3	......
1880	49.1	48.8	51.9	56.1	58.6	59.2	65.3	64.2	63.3	63.6	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

LONG BEACH, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	52.4	55.5	59.9	66.2	63.4	68.3	72.2	71.8	73.1	67.5	59.1	59.7	64.1
1890	54.5	55.0	......	62.2	......	......	......	......	......	......	......	......	......
Means	53.4	55.2	59.9	64.2	63.4	68.3	72.2	71.8	73.1	67.5	59.1	59.7	64.0

LOS BAÑOS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	83.4	75.4	62.1	51.0	50.4	......
1887	47.1	47.8	61.7	63.4	70.2	73.4	79.5	78.0	74.2	66.2	55.8	46.5	63.6
1888	44.6	54.3	55.7	67.8	68.6	75.8	80.2	84.4	80.5	68.4	54.8	49.6	65.4
1889	43.1	50.2	59.8	66.1	69.0	76.9	81.8	82.3	[76.7]	64.8	55.6	50.4	[64.7]
1890	44.4	48.0	54.9	63.3	70.2	......	......	......	......	......	......	......	......
Means	44.8	50.1	58.0	65.2	69.5	75.4	80.5	82.0	76.7	65.4	54.3	49.2	64.3

LOS GATOS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	......	......	......	55.4	60.0	67.6	65.4	66.2	66.7	65.3	56.4	55.2	......
1888	55.4	52.0	51.0	58.4	59.2	65.6	67.8	70.0	70.8	[64.4]	56.3	52.4	[60.3]
1889	47.7	51.0	57.5	63.4	66.8	71.1	72.3	70.6	72.1	63.5	59.0	52.3	62.3
1890	45.1	49.9	54.5	62.7	66.8	......	......	......	......	......	......	......	......
Means	49.4	51.0	54.3	60.0	63.2	68.1	68.5	68.9	69.9	64.4	57.2	53.3	60.7

LOS ANGELES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	......	65.4	59.0	50.0	......
1875	51.1	54.3	55.1	60.8	66.4	68.5	73.0	74.5	69.5	72.5	61.9	55.4	63.6
1876	51.8	52.1	59.3	65.6	72.0	78.7	83.3	77.8	70.7	68.8	62.4	58.9	66.8
1877	59.3	62.3	63.6	66.1	66.8	78.5	71.1	70.0	69.6	63.4	62.1	56.0	65.7
1878	54.9	55.0	56.0	57.8	62.2	65.0	67.7	68.7	65.6	63.1	58.3	54.4	60.7
1879	52.2	55.5	58.5	58.7	61.0	65.8	66.8	69.5	67.2	64.3	55.2	51.9	60.6
1880	51.3	50.1	51.1	55.9	61.1	63.4	64.2	66.4	64.5	62.0	55.5	55.6	58.4
1881	51.7	57.9	55.8	61.4	62.7	65.6	68.8	69.4	67.9	60.9	57.5	54.7	61.2
1882	49.4	50.3	55.3	56.4	61.7	64.4	68.0	71.0	67.6	63.0	57.3	56.4	60.1
1883	53.5	52.3	56.7	57.3	62.1	68.8	69.8	69.8	71.9	61.0	59.2	56.3	61.6
1884	53.9	55.1	54.8	57.2	61.6	65.6	70.2	71.3	65.5	62.3	59.6	52.3	60.8
1885	53.9	56.6	60.6	61.9	63.5	65.0	70.0	72.7	69.5	64.8	59.5	57.9	63.0
1886	54.7	59.5	54.3	57.2	62.4	66.1	69.7	71.8	65.6	59.3	56.6	55.7	61.1

Mean monthly and annual temperature at stations in California—Continued.

LOS ANGELES, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	55.4	51.6	59.1	59.1	63.1	66.1	69.5	68.5	68.2	65.8	60.0	53.7	61.7
1888	50.0	54.4	55.1	61.9	60.8	67.5	73.4	73.0	73.8	66.0	59.9	57.4	62.8
1889	52.4	56.4	59.2	62.2	62.6	66.4	70.8	71.6	72.6	66.3	61.3	54.8	63.0
1890	49.1	54.2	57.5	59.4	63.2	67.6	......	......	......	......	......	......	......
Means	52.8	54.8	57.0	59.9	63.3	67.7	70.4	71.1	68.6	64.3	59.1	55.1	62.0

LUGONIA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	53.2	58.0	......
1887	54.8	48.0	62.0	56.0	66.0	71.4	79.0	......	......	67.0	60.9	48.5	......
1888	49.0	52.0	53.0	62.0	......	......	......	......	......	......	......	......	......
Means	51.9	50.0	57.5	59.0	66.0	61.4	79.0	......	......	67.0	57.0	53.2	......

MAMMOTH TANK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	67.9	65.1	58.9	......
1878	56.0	61.7	67.8	72.3	82.3	90.7	98.2	105.0	90.9	78.5	65.4	55.3	77.0
1879	56.2	67.8	75.0	77.7	77.9	93.8	99.2	103.0	95.3	78.6	64.6	53.3	78.5
1880	55.9	54.4	61.0	73.0	83.0	95.5	95.9	96.5	90.8	76.9	60.1	56.9	75.0
1881	54.4	63.2	63.8	76.9	84.0	92.1	98.1	94.3	87.3	74.3	59.9	56.6	75.4
1882	48.3	53.7	62.4	74.0	83.5	90.3	100.9	100.0	92.4	77.0	64.2	62.2	75.7
1883	54.3	58.4	74.4	73.4	82.5	99.4	97.6	99.1	94.2	74.1	64.9	60.0	77.7
1884	54.7	59.0	58.9	68.8	85.0	92.9	99.8	100.1	89.9	80.3	66.9	54.5	75.9
1885	54.5	64.4	67.0	76.8	85.0	90.2	98.6	98.2	90.5	82.1	68.6	61.3	78.1
1886	56.7	66.7	66.3	75.9	90.8	95.7	102.9	102.3	96.7	77.2	62.3	60.8	79.5
1887	57.7	58.0	78.4	80.4	91.2	100.2	[99.0]	90.4	88.4	80.4	65.8	51.0	[78.4]
1888	49.6	59.4	63.0	82.0	82.6	93.4	97.2	96.0	93.9	78.6	61.3	52.0	75.8
1889	51.2	56.5	67.1	79.3	84.2	90.3	100.2	98.8	88.6	77.4	63.0	57.0	76.1
1890	50.4	59.0	69.1	77.8	83.6	88.7	......	......	......	......	......	......	......
Means	53.8	60.2	67.2	76.0	84.3	93.3	99.0	98.6	91.6	77.2	64.0	56.9	76.8

MARE ISLAND, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	44.2	50.6	52.4	......	......	......	......	......	......	......	......	......	......
1869	52.7	54.2	61.6	......	......	......	65.6	67.2	70.6	64.4	63.1	51.2	......
1870	......	......	......	......	......	......	71.3	69.6	66.4	......	......	......	......
1871	......	......	......	......	......	......	64.3	65.0	64.4	63.9	54.8	49.9	......
1872	49.4	53.0	55.5	57.5	63.2	68.1	70.0	70.1	68.9	64.1	56.0	50.3	60.5
1873	54.2	50.1	57.5	59.4	63.6	67.3	67.5	65.8	64.5	62.7	58.5	46.6	59.8
1878	55.0	55.5	60.0	60.0	62.5	65.0	......	......	......	......	......	......	......
Means	51.1	52.7	57.4	59.0	63.1	66.8	67.7	67.5	67.0	63.8	58.1	49.5	60.3

MARTINEZ, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	[46.5]	57.2	60.1	63.7	67.1	71.9	71.4	70.7	70.2	61.2	57.3	45.9	[61.9]
1879	44.8	53.5	59.2	62.3	62.7	70.5	69.7	71.8	68.8	63.0	56.7	47.5	60.9
1880	42.0	44.3	51.0	58.8	63.9	70.4	70.6	69.4	66.0	66.1	58.9	55.6	59.8
1881	54.5	58.0	56.8	62.4	64.7	68.5	72.2	70.2	68.0	63.3	53.8	48.2	61.7
1882	47.2	47.0	53.7	57.3	61.2	65.5	69.0	68.8	67.6	57.6	47.9	49.8	58.0
1883	44.3	45.2	56.0	56.1	60.5	64.0	68.1	64.3	67.5	58.8	49.6	44.0	56.5
1884	43.8	44.4	54.1	54.8	61.2	63.6	66.6	65.7	59.5	55.5	51.4	47.0	55.6
1885	46.8	50.4	56.0	59.3	65.4	64.2	68.2	68.1	67.5	61.4	55.8	52.6	59.6
1886	46.9	52.7	49.6	54.7	62.6	68.9	68.2	68.6	62.6	51.9	49.2	48.7	57.0
1887	48.0	44.6	53.6	57.1	60.8	67.5	66.7	61.3	62.9	62.4	54.2	50.3	57.4
1888	44.0	53.1	49.7	58.9	58.6	70.7	74.3	68.3	67.8	63.5	54.2	50.8	59.5
1889	45.8	51.0	54.8	59.6	64.2	[70.2]	70.3	70.0	68.4	60.7	55.8	49.0	[60.0]
1890	42.6	45.7	52.0	55.8	63.9	70.7	......	......	......	......	......	......	......
Means	45.9	49.8	54.4	58.5	63.1	68.2	69.6	68.1	66.4	60.4	53.8	49.1	58.6

Mean monthly and annual temperature at stations in California—Continued.

MARYSVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	[48.6]	50.1	66.8	67.2	66.0	77.9	82.0	83.9	74.8	66.0	54.5	52.3	[65.8]
1872	50.9	51.9	54.5	55.4	69.9	76.7	82.9	82.9	77.3	73.7	51.1	56.4	65.3
1873	52.9	48.6	57.8	59.9	70.9	77.1	81.9	77.0	78.9	63.4	57.8	47.5	64.5
1874	47.5	49.7	53.6	61.8	69.4	76.0	79.5	74.0	72.5	63.4	54.4	45.1	62.2
1875	45.6	50.5	52.0	65.0	76.8	76.5	82.0	76.6	73.1	70.1	55.8	49.0	64.4
1876	45.7	50.5	53.2	60.5	67.0	79.3	71.4	74.8	72.2	65.8	58.5	50.0	62.4
1877	50.0	57.2	61.2	64.5	68.9	78.9	79.7	78.8	76.0	63.6	55.2	57.2	65.9
1878	53.8	55.4	61.3	[62.6]	69.0	77.5	76.8	78.2	71.8	67.3	59.8	50.0	[65.3]
1879	45.0	54.5	56.0	59.4	64.8	77.2	78.1	82.1	70.1	65.5	55.0	48.7	63.0
1880	44.4	46.0	51.6	53.0	64.7	72.8	81.1	79.6	72.4	68.5	56.2	58.1	62.4
1881	52.7	56.3	63.8	64.4	71.8	75.4	77.9	78.9	76.5	62.1	56.1	48.3	65.4
1882	46.9	45.9	[58.3]	58.3	69.1	78.0	82.7	78.5	74.4	59.1	56.7	53.5	[63.4]
1883	45.5	48.8	62.7	66.1	[69.9]	77.4	80.9	78.8	80.0	61.3	50.0	44.6	[63.8]
1884	43.7	48.0	55.8	67.0	69.1	70.8	76.9	82.4	80.2	67.2	55.9	49.2	63.8
1885	47.4	56.8	64.9	66.6	73.8	71.5	82.1	80.9	77.0	66.8	55.8	[50.7]	[66.2]
1886	47.6	54.7	52.9	56.0	[69.9]	80.2	76.0	76.6	79.0	66.0	61.9	50.8	[64.3]
1887	48.5	42.5	54.9	57.9	71.4	75.6	74.1	71.3	69.4	67.1	58.6	53.3	62.0
1888	54.5	[50.9]	63.9	70.4	70.2	78.8	81.3	81.4	77.6	67.4	52.7	47.7	[66.4]
1889	53.1	53.1	65.1	69.5	75.6	82.1	86.1	78.8	82.6	65.9	59.0	50.5	68.4
1890	47.6	47.2	55.8	66.1	70.2	69.9	......	......	......	......	......	......	......
Means	48.6	50.9	58.3	62.6	69.9	76.5	79.7	78.7	75.6	65.8	56.0	50.7	64.4

MEADOW VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	26.6	32.5	......	43.5	47.1	60.4	65.5	......	......	......	......	36.0	......
1861	32.6	37.0	42.4	48.6	54.4	57.5	69.2	64.3	62.8	51.2	40.7	33.7	49.5
1863	......	......	......	......	......	......	......	......	......	......	......	......	......
1864	36.4	38.4	41.3	48.6	59.3	58.5	66.5	64.8	58.6	50.3	38.2	35.0	49.7
1865	33.5	29.8	40.0	46.5	53.0	64.4	66.7	65.1	55.8	48.9	42.8	30.2	48.1
1866	33.6	38.0	40.7	47.9	51.4	62.1	......	......	......	......	......	......	......
Means	32.5	35.1	41.1	47.0	53.0	60.6	67.0	64.7	59.1	50.1	40.6	33.7	48.7

MENLO PARK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	[46.3]	[49.3]	55.4	59.2	64.9	67.6	67.0	64.2	61.9	58.2	51.6	45.8	[57.6]
1879	44.8	52.5	55.0	59.9	62.5	71.9	67.6	69.2	65.0	59.1	50.5	45.8	58.6
1880	44.1	44.7	48.9	55.3	64.2	66.1	67.0	66.3	63.8	57.8	49.3	50.3	56.5
1881	49.3	53.1	53.9	61.0	64.2	67.3	69.7	66.8	63.2	56.0	50.3	49.0	58.6
1882	46.6	45.4	52.1	55.7	65.5	66.6	69.0	67.7	63.3	58.8	50.7	49.4	57.6
1883	43.4	45.8	54.1	55.1	62.6	67.5	65.4	64.4	65.9	55.8	49.8	46.5	56.4
1884	46.4	48.1	53.2	57.2	65.6	65.3	69.3	66.0	59.6	56.5	53.3	48.3	57.4
1885	47.8	51.6	55.3	58.5	62.4	63.4	68.0	66.3	64.4	58.6	54.2	49.2	58.3
1886	47.8	52.3	50.1	54.9	61.7	65.5	66.5	65.4	61.1	55.5	48.7	50.5	56.7
1887	46.4	47.1	55.8	55.4	61.0	66.5	64.2	63.6	64.6	60.8	53.6	48.3	57.3
1888	45.8	52.5	51.4	59.0	60.4	67.0	70.2	69.5	66.7	61.7	55.2	53.1	59.4
1889	47.5	51.2	56.3	59.1	61.9	66.4	66.0	67.9	66.3	61.3	55.8	50.3	59.2
1890	45.4	47.8	53.7	57.0	62.8	63.7	......	......	......	......	......	......	......
Means	46.3	49.3	53.5	57.5	63.1	66.5	67.5	66.4	63.8	58.3	51.9	48.9	57.8

MERCED, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	......	54.9	60.8	75.7	......	80.7	83.3	76.7	59.3	53.8	54.1	......
1873	52.8	......	54.6	60.0	64.9	66.5	74.3	......	63.1	61.3	......	......	......
1874	[47.2]	54.0	53.6	53.4	65.5	77.2	55.1	81.3	74.6	64.6	54.4	43.9	[60.4]
1875	46.4	50.8	52.3	63.3	71.5	75.6	83.9	79.8	75.1	71.2	55.5	48.2	64.5
1876	43.2	44.3	47.0	58.0	65.6	79.5	78.8	77.1	74.1	65.4	54.3	47.1	61.2
1877	50.1	56.3	62.1	62.1	67.2	79.3	82.2	80.4	77.0	63.3	54.6	48.3	65.2
1878	49.2	50.7	54.9	58.2	66.9	77.6	79.4	78.6	72.0	64.1	55.2	46.9	62.8
1879	46.2	55.0	58.3	62.9	63.8	77.6	79.2	83.9	77.0	64.1	53.0	45.5	63.9
1880	43.8	46.3	50.8	57.5	68.8	74.3	81.4	75.3	76.7	63.8	51.5	49.3	61.6
1881	50.0	55.1	55.6	64.3	70.4	74.3	81.1	78.3	71.1	57.8	54.6	50.4	63.3
1882	45.1	51.9	53.9	58.4	70.0	73.4	85.6	84.5	74.7	66.1	53.9	55.4	64.4

***Mean monthly and annual temperature at stations in California*—Continued.**

MERCED, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	44.0	51.6	60.3	57.0	66.7	79.1	83.2	81.2	79.1	61.2	53.7	49.9	[63.9]
1884	47.4	48.9	51.5	59.7	66.4	70.6	77.6	79.0	62.0	63.0	59.9	50.3	61.4
1885	50.7	55.3	64.7	64.6	72.7	73.8	81.6	82.9	75.5	70.8	59.8	51.5	67.0
1886	48.5	56.6	53.5	62.1	70.2	78.7	81.8	82.0	74.9	61.8	54.2	54.6	64.9
1887	49.0	46.8	62.9	62.1	71.7	78.1	82.5	68.5	74.6	72.0	58.8	49.4	64.7
1888	47.1	54.6	54.2	65.9	69.3	76.3	83.4	83.0	77.7	68.5	58.2	50.8	65.8
1889	45.0	48.8	57.6	63.3	69.6	78.2	81.3	81.5	75.3	63.2	56.3	51.5	64.3
1890	43.8	49.9	56.4	59.1	67.8	73.0	......	......	......	......	......	......	......
Means	47.2	51.6	55.7	60.7	68.7	75.7	79.6	79.9	74.0	64.5	55.4	49.8	63.6

MIDWAY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	79.0	75.5	77.3	63.5	53.2	46.2	......
1878	46.9	48.4	53.5	57.8	65.7	75.8	77.8	77.4	72.0	64.3	53.0	42.6	61.3
1879	42.9	......	......	......	......	......	......	......	......	......	......	......	......
Means	44.9	48.4	53.5	57.8	65.7	75.8	78.4	76.4	74.6	63.9	53.1	44.4	61.4

MILLER, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1851	......	......	......	......	......	......	......	82.7	75.4	69.9	55.3	48.0	......
1852	48.3	55.7	55.4	63.4	72.3	88.6	88.4	83.8	81.4	66.3	52.5	48.5	64.8
1853	49.8	53.1	58.6	64.2	70.2	84.6	89.6	82.6	75.0	68.8	55.7	46.4	66.6
1854	43.6	49.6	53.0	62.5	66.8	76.2	90.9	85.6	74.5	65.1	58.4	49.1	64.6
1855	46.5	53.7	59.8	61.2	65.8	84.2	87.6	90.9	79.9	75.9	55.1	46.4	67.2
1856	49.4	53.1	60.8	63.9	72.0	82.5	88.3	85.0	79.3	62.2	52.9	42.4	66.0
1857	47.1	50.9	58.3	69.6	73.2	86.8	84.8	85.8	74.6	65.1	53.7	47.5	66.5
1858	43.0	49.7	54.5	63.3	71.1	80.2	......	......	......	......	......	......	......
1863	......	......	......	......	......	......	......	......	......	......	......	49.7	......
1864	52.0	57.7	61.2	68.0	71.5	77.1	87.8	87.3	......	......	......	......	......
Means	47.5	52.9	57.7	64.5	70.4	82.5	88.2	85.5	77.2	67.6	54.8	47.5	66.1

MODESTO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	54.5	......	61.6	70.9	79.5	......	76.1	65.7	49.1	49.1	......
1872	49.1	47.1	54.0	58.2	75.9	78.2	[81.0]	80.9	74.8	76.1	59.4	51.1	[65.5]
1873	53.5	43.8	51.4	54.2	64.2	65.6	83.3	80.1	88.8	67.1	67 5	48.5	64.0
1874	41.9	44.5	55.2	68.1	74.7	[75.8]	[81.0]	77.7	72.9	63.6	53.4	43.3	[62.7]
1875	46.5	47.6	51.8	64.9	71.9	76.5	81.3	78.1	74.0	70.3	56.6	48.2	64.0
1876	45.1	50.0	53.2	60.7	68.4	81.7	80.1	78.2	74.2	65.9	54.4	46.0	63.2
1877	50.4	55.3	60.7	62.6	67.4	79.2	81.0	77.7	75.6	63.8	53.7	47.7	64.6
1878	49.1	50.9	57.1	61.6	69.3	77.6	78.0	78.0	74.5	63.1	54.5	44.2	63.2
1879	44.4	55.3	61.0	64.7	67.0	81.1	82.8	85.3	75.9	63.5	52.3	45.9	64.9
1880	44.1	46.5	51.5	58.4	67.1	75.1	80.7	79.7	75.0	64.0	49.9	52.1	62.0
1881	40.6	54.2	57.0	66.7	71.7	73.5	78.2	75.2	70.5	60.2	51.0	49.5	62.4
1882	45.1	46.6	53.4	60.1	70.8	73.0	86.8	82.7	74.0	58.4	47.4	44.9	61.9
1883	43.3	45.4	58.8	[62.3]	65.4	77.7	78.9	77.8	77.6	60.5	51.1	44.5	[61.9]
1884	40.4	46.4	52.2	56.2	65.5	67.6	80.7	[80.4]	69.4	64.6	62.2	46.0	[61.0]
1885	47.9	54.4	59.7	63.4	76.8	78.9	80.8	82.2	72.1	67.4	56.0	51.3	65.9
1886	47.9	54.0	54.4	61.1	73.6	83.2	86.9	87.3	74.3	61.1	49.8	50.1	65.3
1887	46.6	46.1	59.7	63.8	72.5	78.1	79.3	78.0	74.2	65.8	53.0	44.9	63.5
1888	44.2	50.8	54.4	66.2	66.1	73.4	80.9	86.6	80.7	64.7	52.7	50.4	61.3
1889	45.0	50.2	61.4	69.6	73.8	75.2	78.4	81.1	77.0	63.2	57.0	50.9	65.2
1890	39.9	44.1	50.2	61.6	69.3	74.3	......	......	......	......	......	......	......
Means	45.5	49.1	55.6	62.3	69.6	75.8	81.0	80.4	75.5	64.7	54.3	47.8	63.5

***Mean monthly and annual temperature at stations in California*—Continued.**

MOJAVE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	......	......	56.1	50.3	......
1877	49.6	55.6	61.4	60.5	68.5	82.8	90.9	83.8	77.4	75.5	58.8	30.4	66.3
1878	51.8	49.8	56.2	57.0	63.4	76.2	83.6	84.5	77.8	67.7	56.8	48.2	64.4
1879	42.2	53.4	58.7	62.7	66.3	80.1	87.5	89.4	82.3	71.5	55.4	47.3	66.4
1880	48.3	46.2	49.8	58.2	68.4	80.6	86.8	82.3	79.5	68.1	49.7	50.1	64.0
1881	49.0	53.3	56.4	64.5	67.4	79.3	81.9	81.0	75.0	59.8	50.5	48.8	63.9
1882	38.7	42.8	51.7	57.7	73.2	75.6	88.0	87.8	78.9	64.9	55.0	52.4	63.9
1883	40.3	45.0	49.4	51.7	67.3	83.1	88.7	87.8	79.8	60.0	59.7	52.3	63.8
1884	45.8	45.2	52.2	51.8	55.3	60.2	77.0	76.3	72.0	73.4	[55.1]	[48.3]	[59.4]
1885	43.6	52.6	53.7	59.3	68.6	73.2	83.4	85.9	76.3	64.7	52.7	48.0	63.5
1886	45.2	54.0	50.9	[60.4]	69.7	79.3	84.6	74.6	75.7	59.2	47.1	48.9	[62.5]
1887	46.5	42.3	62.5	67.4	77.9	78.8	84.9	82.9	77.6	71.5	60.0	50.1	66.9
1888	43.7	52.1	53.7	71.0	67.6	[77.6]	81.2	[83.6]	93.9	69.4	[55.1]	51.8	[66.7]
1889	49.9	54.9	58.1	61.0	68.1	82.7	89.1	86.5	80.5	66.3	59.1	49.0	67.1
1890	42.8	45.4	52.5	62.8	72.1	76.6	......	......	......	......	......	......	......
Means	45.5	49.5	54.8	60.4	68.1	77.6	85.2	83.6	79.0	67.1	55.1	48.3	64.5

MONTAGUE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	49.8	......	......	......	65.6	80.3	......	74.3	61.9	44.1	40.4	......
1889	33.7	43.9	53.8	62.0	65.1	82.9	86.3	86.4	75.5	58.8	46.6	37.2	61.0
1890	22.1	38.5	46.9	58.3	67.0	66.2	......	......	......	......	......	......	......
Means	27.9	44.1	50.4	60.2	66.0	71.6	83.3	86.4	74.9	60.4	45.4	38.8	59.1

MONTEREY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1847	......	......	......	......	55.4	57.9	58.6	59.3	61.2	57.9	52.4	50.6	......
1848	51.4	46.6	50.2	52.8	55.2	58.1	54.4	60.1	......	......	......	......	......
1849	......	......	......	......	61.3	56.7	61.7	58.0	57.2	58.9	55.2	50.1	......
1850	49.2	50.2	50.7	54.6	55.8	56.7	57.6	57.7	59.6	57.0	53.5	49.1	54.3
1851	......	......	......	......	......	......	57.1	62.8	59.1	60.0	55.6	53.2	......
1852	56.1	54.6	53.5	53.9	55.6	59.9	61.6	......	......	......	......	......	......
1859	......	......	......	......	......	......	61.4	62.8	......	59.8	56.1	49.4	......
1860	46.6	48.9	53.2	52.7	54.2	56.6	59.5	58.8	60.0	56.8	54.0	50.1	54.3
1863	......	......	......	......	......	......	......	......	......	58.6	51.9	50.0	......
1864	51.2	51.7	53.6	56.3	58.6	58.6	59.4	61.7	60.4	59.5	53.4	51.2	56.3
1865	48.9	49.0	50.3	52.4	58.4	57.8	60.6	59.2	60.4	56.6	55.9	45.6	54.6
1866	50.2	54.1	53.9	56.1	56.1	59.7	59.6	60.2	61.9	57.4	53.6	54.0	56.4
1867	50.8	49.3	51.0	56.7	57.4	60.0	63.8	61.4	60.6	55.4	54.0	54.3	56.2
1868	46.0	48.6	52.0	54.5	57.8	58.0	58.9	59.8	58.8	58.4	53.4	50.2	54.7
1869	49.2	48.8	54.9	56.4	56.4	61.6	62.0	59.0	58.5	57.7	53.5	47.9	55.5
1870	50.6	51.4	50.2	53.5	57.5	59.0	63.1	64.9	61.2	57.7	53.8	45.7	55.7
1871	50.0	48.2	53.0	54.8	55.8	60.2	62.2	62.0	61.5	59.9	[53.8]	[51.1]	[56.0]
1872	......	......	52.5	53.0	58.2	61.3	......	62.8	......	......	......	......	......
1880	[50.0]	[50.5]	52.1	55.9	56.7	57.1	61.5	63.9	63.0	58.4	50.5	54.0	[56.1]
1881	51.6	55.4	53.6	59.1	59.2	60.6	61.3	60.5	60.0	55.6	51.2	51.5	56.6
1882	47.3	45.0	51.8	51.6	57.8	60.9	61.5	61.1	60.4	57.8	51.4	52.3	54.9
1883	49.1	49.5	56.4	56.6	60.3	64.8	65.4	62.5	65.2	57.4	52.8	51.9	57.7
1884	50.1	50.6	55.9	57.9	60.8	62.5	62.6	62.4	59.3	57.5	53.4	51.5	57.0
1885	50.5	53.5	55.9	59.0	60.9	60.2	60.9	62.0	59.9	57.8	56.6	53.5	57.5
1886	52.6	53.7	52.3	56.7	60.2	59.7	60.2	60.3	59.1	54.8	50.8	52.0	56.0
1887	49.4	48.3	54.0	53.3	58.4	62.0	[60.9]	62.1	62.6	61.4	57.5	53.3	[56.9]
1888	49.7	54.8	64.6	61.9	60.0	64.8	64.6	63.1	62.5	59.5	57.3	55.2	59.0
1889	49.8	50.1	56.1	60.0	61.7	64.7	64.5	64.4	65.0	64.4	54.3	50.9	58.8
1890	48.7	47.9	51.7	52.1	57.4	58.6	......	......	......	......	......	......	......
Means	50.0	50.5	53.1	55.5	58.0	59.9	60.9	61.3	60.8	58.2	53.8	51.1	56.1

MONTEREY (HOTEL DEL MONTE), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	53.3	58.7	60.6	60.0	65.5	67.2	62.5	62.6	61.6	57.8	53.0	......
1890	47.6	48.7	53.4	54.7	59.7	59.5	......	......	......	......	......	......	......
Means	47.6	51.0	56.0	57.6	59.8	62.5	67.2	62.5	62.6	61.6	57.8	53.0	58.3

Mean monthly and annual temperature at stations in California—Continued.

MOUNT HAMILTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888							66.0	71.7	69.1	56.9	46.5	31.0	
1889	39.5	43.9	44.8	50.3	52.8	67.4	70.7	70.4	66.9	50.5	48.5	35.2	53.4
1890	30.2	36.8	40.5	47.6	54.5	57.6							
Means	34.8	40.4	42.6	49.0	53.6	62.5	68.4	71.0	68.0	53.7	47.5	33.1	52.0

MURRIETTA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885							70.9	75.8	67.5	61.2	54.5	49.5	
1886	49.7	51.2	49.9	54.1	62.4	65.0	71.6	74.3					
Means	49.7	51.2	49.9	54.1	62.4	65.0	71.2	75.0	67.5	61.2	54.5	49.5	59.3

MURPHY'S, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	35.9	[44.4]	48.6	54.1	55.5	62.5	75.7	76.9	64.6	55.6	[49.3]	43.0	[55.5]
1869	40.5	41.6	49.2										
Means	38.2	43.0	48.9	54.1	55.5	62.5	75.7	76.9	64.6	55.6	49.3	43.0	55.6

NAPA CITY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877							67.8	64.2	65.5	58.0	52.6	46.8	
1878	48.1	48.2	53.1	54.5	59.8	64.0	64.5	64.5	61.5	58.8	51.4	45.0	56.1
1879	44.2	50.9	54.0	56.6	56.9	64.8	64.0	64.9	63.3	60.7	50.5	42.8	56.1
1880	42.0	46.0	47.9	52.0	59.1	61.8	63.4	62.2	61.5	56.1	48.9	47.7	54.0
1881	49.4	52.8	51.4	56.5	60.1	61.3	65.9	63.0	61.6	53.9	49.1	44.3	55.8
1882	43.0	43.2	49.0	57.0	59.0	60.6	63.8	62.4	63.7	49.9	46.9	45.6	53.7
1883	39.7	42.8	50.9	51.8	57.7	67.2	63.4	63.4	64.2	55.6	47.2	41.1	53.8
1884	43.2	51.8	50.0	52.5	59.1	60.6	65.9	62.8	58.0	54.4	51.7	47.9	54.8
1885	43.4	50.6	54.0	57.9	58.7	60.6	64.2	61.9	62.9	58.6	52.3	48.4	56.1
1886	44.7	51.1	48.8	52.5	58.0	63.7	66.0	65.5	62.0	54.7	47.5	47.5	55.2
1887	45.1	41.0	51.9	54.6	57.6	63.1	61.0	60.6	62.5	61.2	50.8	45.1	54.5
1888	41.4	48.9	49.5	57.8	57.2	63.5	65.1	65.9	65.1	59.3	50.7	47.3	56.0
1889	41.6	46.4	53.2	57.2	58.4	62.9	63.0	63.3	64.4	57.7	52.0	44.8	55.4
1890	39.4	49.7	47.8	56.2	64.5	65.5							
Means	43.5	48.0	50.9	55.2	58.9	63.0	64.5	63.4	62.8	56.8	50.1	45.7	55.2

NAPA INSANE ASYLUM, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878							64.5	64.5	61.6	58.8	51.5	45.0	
1879	43.2	50.9	54.0	56.6	56.9	64.8							
Means	43.2	50.9	54.0	56.6	56.9	64.8	64.5	64.5	61.6	58.8	51.5	45.0	56.0

NATIONAL CITY (SWEETWATER DAM), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889							70.0	72.3	69.9	64.5	61.5	55.9	
1890	49.8	54.1	57.0	58.4	61.2	66.4							
Means	49.8	54.1	57.0	58.4	61.2	66.4	70.0	72.3	69.9	64.5	61.5	55.9	61.8

NEEDLES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883								94.8	90.5	70.7	54.8	49.7	
1884	51.7	53.8	60.7	68.8	77.8	80.3	93.7	89.2	78.2				
1888												51.2	
1889	49.8	54.7					98.8	97.0		72.1	59.5	56.5	
1890		53.6	62.9										
Means	50.8	54.0	61.8	68.8	77.8	80.3	96.2	93.7	84.4	71.4	57.2	52.5	70.7

Mean monthly and annual temperature at stations in California—Continued.

NEWARK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888								68.6	68.4	65.0	58.1	49.8	
1889	48.8			61.6		68.9	66.8	68.6	69.8	63.5	56.8	51.6	
1890	47.2	50.6	55.4	60.0	66.4	66.0							
Means	48.0	50.6	55.4	60.8	66.4	67.4	66.8	68.6	69.1	64.2	57.4	50.7	60.4

NEWHALL, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876											58.6	49.9	
1877	52.5	57.1	59.1	61.0	64.9	75.6	78.2	80 9	76.3	64.3	57.9	40.6	64.0
1878	49.8	51.2	54.6	57.8	63.9	69.6	75.8	76.2	71.2	61.3	55.5	48.0	61.5
1879	46.1	54.1	59.3	60.6	64.8	69.7	74.7	79.2	72.1	62.5	52.1	48.2	62.0
1880	45.6	44.4	49.2	55.9	65.5	69.8	71.6	73.1	70.1	60.9	49.4	50.3	58.8
1881	47.2	51.0	53.3	61.4	67.2	72.1	75.8	74.1	73.5	58.8	50.3	47.1	61.0
1882	43.7	43.7	51.9	57.0	64.8	60.1	74.6	79.2	71.7	59.6	52.0	50.9	59.1
1883	45.6	47.3	55.1	57.1	62.2	74.6	74.9	76.2	73.5	56.2	53.0	51.2	60.6
1884	48.4	48.9	51.4	46.0	62.9	68.1	73.3	76.8	65.7	60 5	56.5	47.3	58.8
1885	46.7	50.7	57.1	60.2	62.3	68.1	75.2	79.8	72.9	64.5	55.5	56.3	62.4
1886	50.8	54.0	51.0	56.8	66.7	78.5	85.7	85.9	70.6	59.4	50.5	53.2	63.6
1887	49.0	46.4	56.7	58.6	63.6	71.1	75.6	72.2	72.4	65.6	55.8	46.5	61.1
1888	45.5	50.9	54.9	65.1	64.0	71.5	77.6	75.2	76.6	63.9	52.9	49.8	62.3
1889	48.0	[50.0]	55.0	61.1	63.4	67.7	77.2	79.2	71.9	[61.7]	56.4	49.9	[61.8]
1890	44.3	50.7	53.8	57.0	62.3	65.9							
Means	47.4	50.0	54.5	58.3	64.2	70.2	76.2	77.5	72.2	61.7	54.0	49.2	61.3

NEWMAN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888									85.5		58.3	53.1	
1889	48.3	48.4	62.5	62.4	69.0	80.1	79.9	82.7	73.5	61.5	51.6	47.9	64.0
1890	45.6	48.1	53.6	59.9	70.8	76.2							
Means	47.0	48.2	58.0	61.2	69.9	78.2	79.9	82.7	79.5	61.5	55.0	50.5	64.3

NEW SAN DIEGO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	51.6	53.5	59.7	61.5	62.7	65.3	70.0	73.0	68.7	62.8	55.4	54.0	61.5
1861	50.6	55.4	56.8	62.8	65.6	66.9	72.4	71.3	68.9	62.7	58.9	56.4	62.4
1862	54.8	50.8	55.9	59.2	62.0	67.2	70.9	72.8	68.9	65.4	58.7	53.7	61.7
1863	51.4	51.6	59.1	61.0	63.5	65.3	69.2	69.0	68.3	64.2	56.6	54.0	61.1
1864	55.0	55.0	57.6	61.3	65.6	69.2	69.8	73.9	68.1	[64.2]	57.2	54.2	[62.6]
1865	55.2	54.7	57.2	60.6	66.4	67.6	68.7	70.9	67.0	63.9	58.5	49.2	61.7
1866	53.9	57.3	57.4	61.1									
1870									69.4	66.4	63.3	56.6	
1871			60.6	59.9									
Means	53.2	54.0	58.0	60.9	64.3	66.9	70.2	71.8	68.5	64.2	58.4	54.0	62.0

NICOLAUS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885												50.6	
1886	47.8	55.0	52.4	56.6	64.1	75.4	79.8	78.2	72.2	60.0	52.0	50.0	62.0
1887	48.3	44.8	59.6	60.7	65.5	72.4	75.0	72.4	70.9	68.6	54.3	48.9	61.8
1888	43.2	52.3	56.5	65.3	64.7	68.9	75.6	76.4	75.6	65.6	53.1	49.9	62.3
1889	46.7	50.3											
Means	46.5	50.6	56.2	60.9	64.8	72.2	76.8	75.7	72.9	64.7	53.1	49.8	62.0

Mean monthly and annual temperature at stations in California—Continued.

NILES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	[48.2]	47.5	54.1	54.0	58.0	63.0	62.8	64.8	77.3	62.3	54.2	51.6	[58.2]
1872	51.6	51.7	54.2	54.9	61.1	66.3	66.1	67.1	64.0	59.5	54.5	59.5	59.2
1873	53.9	49.5	55.3	57.9	60.7	64.4	[68.6]	[66.7]	65.3	61.7	57.1	48.9	[59.2]
1874	47.5	48.4	51.7	60.7	61.2	65.9	67.1	65.8	67.7	62.7	56.9	46.7	58.5
1875	45.6	53.3	52.3	59.5	65.1	66.6	67.0	67.7	66.9	60.0	53.0	50.8	59.0
1876	49.2	53.9	53.7	58.7	63.2	70.4	67.4	67.2	65.8	61.0	55.5	48.8	59.6
1877	53.6	55.2	55.4	57.6	61.4	70.7	70.9	67.3	67.3	60.5	55.5	51.2	60.6
1878	49.2	52.0	55.7	57.7	62.9	66.7	69.0	69.0	64.7	62.2	50.5	47.0	58.9
1879	47.6	53.3	58.7	61.4	61.2	70.3	70.2	72.3	67.9	63.9	55.5	50.2	61.0
1880	46.0	47.4	49.8	56.2	65.9	62.8	68.1	65.1	62.7	57.9	48.6	47.3	56.5
1881	50.7	53.0	57.1	62.0	66.9	68.4	75.8	65.6	76.2	54.1	51.0	49.1	60.8
1882	44.2	45.4	51.3	54.3	63.8	62.3	69.5	68.1	65.7	58.8	50.5	48.3	56.8
1883	40.9	46.7	55.4	53.6	62.1	69.5	66.9	65.2	67.9	56.0	51.3	46.5	56.8
1884	46.6	49.2	53.1	54.2	60.9	62.5	68.4	67.8	65.0	57.4	51.0	48.1	57.0
1885	48.1	53.2	57.4	61.9	63.4	63.3	68.9	68.9	70.0	61.0	55.0	49.0	60.0
1886	47.8	53.3	50.4	56.5	62.9	66.6	71.5	71.4	65.5	56.2	50.2	48.6	58.4
1887	46.6	46.8	57.0	[58.2]	[62.9]	61.5	63.2	60.3	63.6	64.6	62.7	[50.1]	[58.4]
1888	[48.2]	50.5	54.8	61.7	63.9	65.3	73.3	68.4	66.7	63.0	62.5	55.2	[61.2]
1889	50.4	54.3	58.5	63.2	65.5	68.7	68.3	68.0	68.1	63.5	61.2	55.4	62.1
1890	48.9	52.7	54.3	58.9	65.2	70.9	......	......	......	......	......	......	......
Means	48.2	50.9	54.5	58.2	62.9	66.5	68.6	67.3	67.3	60.3	54.6	50.1	59.1

NORDHOFF, CAL.

1886	......	......	......	......	......	66.8	73.8	75.7	70.3	59.3	55.0	53.5	......
1887	51.1	45.1	57.3	55.4	58.8	......	......	......	......	......	56.2	47.7	......
1888	44.4	50.8	53.8	60.8	59.2	......	......	......	......	63.7	54.0	51.2	......
1889	46.8	......	......	......	......	......	......	......	......	......	......	......	......
Means	47.4	48.0	55.6	58.1	59.0	66.8	73.8	75.7	70.3	61.5	55.1	50.8	60.2

NORWALK, CAL.

1889	48.2	53.6	61.4	67.1	68.1	69.8	73.3	73.5	73.4	65.4	59.4	55.4	64.0
1890	48.8	53.1	58.9	63.9	67.4	73.5	......	......	......	......	......	......	......
Means	48.5	53.4	60.2	65.5	67.8	71.6	73.3	73.5	73.4	65.4	59.4	55.4	64.0

OAKLAND, CAL.

1875	......	......	......	......	......	......	......	......	......	......	......	48.2	......
1876	45.4	50.5	52.1	54.8	56.5	61.6	60.0	59.6	60.4	58.7	54.3	47.3	55.1
1877	50.6	53.3	55.8	53.9	55.8	61.6	61.4	60.5	61.8	57.2	54.0	49.5	56.3
1878	50.0	50.8	54.0	55.3	57.9	59.3	59.2	59.6	58.2	58.5	53.4	46.5	55.2
1879	45.1	52.2	55.9	56.0	56.6	70.5	59.5	59.6	60.6	58.2	51.4	46.2	56.0
1880	43.9	45.1	47.6	52.6	57.5	57.8	59.5	65.6	59.3	58.1	50.8	51.6	54.2
1881	51.6	53.5	53.2	57.5	58.3	59.4	69.3	60.4	59.2	54.6	50.5	48.2	56.3
1882	46.4	45.8	52.0	52.6	57.8	59.2	60.6	60.4	60.7	57.6	51.0	49.7	54.5
1883	43.7	45.2	52.5	52.5	57.1	63.0	60.3	60.2	63.3	56.8	52.6	46.8	54.5
1884	47.0	48.3	53.2	54.3	59.3	60.8	63.4	61.5	59.4	56.4	55.4	51.2	55.8
1885	49.1	54.1	56.9	58.1	59.0	59.7	63.0	61.0	61.9	59.9	56.8	52.4	57.7
1886	49.4	54.6	51.3	54.4	59.4	60.8	62.8	61.2	61.1	57.0	52.2	52.0	56.4
1887	49.4	46.1	53.9	54.8	57.3	59.6	57.5	58.5	60.7	61.0	53.4	49.5	55.1
1888	45.4	52.3	52.2	57.3	57.0	63.1	62.2	61.6	62.0	60.2	55.7	52.3	56.8
1889	47.7	51.4	56.9	59.0	59.0	61.3	59.8	61.0	63.2	61.1	57.0	49.9	57.3
1890	45.2	47.7	54.3	54.9	59.7	59.5	......	......	......	......	......	......	......
Means	47.3	50.1	53.5	55.2	57.9	61.1	61.3	60.8	60.8	58.2	53.5	49.4	55.8

Mean monthly and annual temperature at stations in California—Continued.

ONTARIO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	54.3	47.9	60.5	58.9	63.7	54.9	74.1						
1889		55.1	58.9	69.6	71.6	69.8	80.8	83.3	83.6	69.7		52.1	
1890	50.1	56.9	62.2	64.2	61.2	60.7							
Means	52.2	53.3	60.5	64.2	65.5	61.8	77.4	83.3	83.6	69.7		52.1	

ORLAND, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	47.1	52.8	63.3	59.5	67.5	81.7	87.5	85.3	80.8	63.4	56.9	47.5	66.1
1884	49.2	50.1	55.4	59.4	72.4	73.3	84.7	85.4	72.8	67.4	59.1	52.7	65.2
1885	52.3	57.4	66.1	66.8	75.7	75.7	83.7	87.4	79.7	72.1	56.6	53.6	68.9
1886	49.6	57.1	56.9	61.3	70.0	83.0	86.9	85.9	79.3	62.6	54.4	53.5	66.7
1887	53.4	45.3	59.4	59.6	69.2	77.8	84.9	81.2	77.4	71.9	61.0	50.5	66.0
1888	44.5	54.8	53.9	69.0	70.7	75.3	85.1	85.5	84.3	74.8	57.5	51.1	67.2
1889	48.9	55.6	62.4	70.0	76.1	85.1	86.7	84.5	80.3	64.2	59.0	47.9	68.5
1890	43.4	48.9	55.0	65.0	71.0								
Means	48.6	52.8	59.0	63.8	71.6	79.0	85.6	85.0	79.2	68.1	57.8	51.0	66.8

OROVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	50.4	49.5	59.1	60.5	68.8	72.7	79.8	82.2	72.7	64.3	61.7	53.7	64.6
1885	52.5	59.2	68.2	64.8	72.1	73.0	78.8	82.1	76.2	69.3	53.0	53.0	66.8
1886	48.2	57.1	55.2	60.3	68.4	79.1	81.2	80.2	74.2	62.2	53.8	52.3	64.4
1887	50.8	47.3	61.1	62.1	70.0	76.1	78.8	76.2	76.2	68.4	58.0	51.0	64.7
1888	45.4	55.2	56.0	66.0	69.0	72.0	79.1	81.0	80.0	68.0	56.4	50.6	64.9
1889	47.0	52.0	59.0	63.1	68.5	79.0	80.0	79.4	74.8	61.1	57.2	49.3	64.4
1890		47.9	53.7	62.5	70.0	74.7							
Means	49.0	52.6	58.9	62.8	69.5	75.2	79.6	80.2	75.7	66.0	56.7	51.6	64.8

PAJARO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873												46.3	
1874	47.9	46.7	47.9	52.9	54.3	57.3	55.5	57.3	55.3	54.9	51.8	43.2	52.1
1875	47.1	50.2	51.5	54.6	61.2	61.3	58.6	56.1	56.0	55.3	56.0	53.0	55.1
1876	48.4	53.0	53.0	57.0	58.9	63.6	63.8	58.1	58.2	58.0	59.5	50.8	56.9
1877	52.7	56.9	59.3	60.2	59.0	64.2	64.0	64.7	60.8	58.3	57.3	54.3	59.3
1878	55.3	57.8	54.5	55.2	58.3	59.7	59.0	59.4	58.9	58.2	54.4	47.8	56.5
1879	47.6	52.7	55.2	54.6	54.5	60.1	59.1	61.6	61.2	58.6	52.1	48.1	55.4
1880	44.0	44.5	47.1	52.1	56.1	57.1	56.7	61.0	56.6	54.7	49.2	52.8	52.7
1881	51.6	54.4	53.2	58.7	61.4	62.0	63.6	61.3	59.3	53.1	46.8	49.1	56.2
1882	46.0	45.1	49.7	51.8	54.8	56.2	59.6	59.9	58.9	54.9	50.3	51.3	53.2
1883	46.5	47.8	50.6	50.5	56.7	62.5	62.0	59.8	61.4	55.3	53.2	51.2	54.8
1884	48.9	52.9	52.8	54.6	60.3	62.7	63.0	64.0	59.4	56.1	54.0	49.3	56.5
1885	49.8	50.9	56.0	58.0	60.3	60.0	64.4	62.4	61.3	59.4	56.4	[50.7]	[57.5]
1886	52.1	55.8	51.0	55.9	59.9	61.4	63.5	64.2	63.4	57.1	55.5	56.3	58.0
1887	51.5	48.4	56.1	54.9	58.2	61.9	60.2	58.6	61.4	61.6	53.8	51.0	56.5
1888	47.1	53.1	52.1	56.0	58.3	63.1	63.5	61.4	62.3	60.8	55.6	55.8	57.4
1889	49.0	51.7	56.1	60.2	60.2	62.6	62.5	63.3	64.4	59.9	56.8	51.5	58.2
1890	45.3	48.4	53.2	54.9	59.3	59.1							
Means	48.9	51.2	52.9	55.4	58.3	60.9	61.2	60.8	59.9	57.3	53.9	50.7	56.0

PARADISE VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872					63.8	77.5	72.5	72.3	72.0	65.9	60.8	57.0	
1873	58.1	54.2	59.2	60.1	63.0	66.9	69.7	72.0	71.0	64.6	62.0	49.9	62.6
Means	58.1	54.2	59.2	60.1	63.4	72.2	71.1	72.2	71.5	65.2	61.4	53.4	63.5

Mean monthly and annual temperature at stations in California—Continued.

PASADENA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	......	......	52.4	......
1890	45.7	51.2	55.8	59.8	64.1	......	......	......	......	......	......	......	......
Means	45.7	51.2	55.8	59.8	64.1	......	......	......	......	......	......	52.4	......

PASO ROBLES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	49.7	49.9	......
1887	44.3	45.3	54.5	57.9	64.7	70.6	72.5	69.0	69.3	61.7	52.4	46.7	59 1
1888	41.1	47.8	51.9	62.3	64.0	71.7	73.5	74.4	71.0	60.4	51.3	47.9	59.8
1889	41.6	46.1	54.3	68.6	61.8	67.4	73.1	71.5	67.9	59.2	[51.1]	47.5	[59.2]
1890	40.4	44.0	50.5	58.1	65.8	68.9	......	......	......	......	......	......	......
Means	41.8	45.8	52.8	61.7	64.1	69.6	73.0	71.6	69.4	60.4	51.1	48.0	59.1

PETALUMA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	......	......	54.1	55.7	......
1872	53.7	53.7	53.3	57.4	63.1	67.8	65.9	65.0	62.3	57.5	52.0	47.6	58.3
1873	49.9	42.2	......	......	......	......	......	......	......	......	......	......	......
1874	[47.1]	46.9	48.5	53.6	59.8	63.6	63.4	62.3	64.9	58.7	53.2	46.4	[55.7]
1875	45.9	48.9	49.4	56.7	63.4	65.0	63.4	63.3	59.1	61.1	55.2	49.6	56.8
1876	45.8	49.6	52.9	56.3	59.2	70.6	64.0	63.6	62.7	59.2	53.4	46.2	57.0
1877	48.7	51.7	54.4	55.8	59.4	67.1	67.4	62.7	64.5	58.6	52.2	48.8	57.6
1878	49.2	51.1	54.2	57.4	60.3	66.6	65.9	62.2	60.4	55.9	53.4	44.6	56.8
1879	44.0	50.4	52.7	53.3	54.1	62.6	60.6	62.1	58.6	57.1	47.9	43.9	53.9
1880	43.0	45.0	46.0	50.1	56.9	57.9	60.1	61.8	61.6	59.5	49.2	50.5	53.5
1881	47.9	51.3	52.5	60.4	61.6	61.1	67.3	65.4	64.5	56.9	51.3	48.7	57.7
1882	44.8	[49.5]	51.0	51.6	57.8	60.9	63.7	63.0	62.7	56.9	49.2	47.4	[54.9]
1883	42.5	43.0	53.0	52.5	57.8	64.2	62.9	62.2	65.7	55.1	48.8	44.4	54.3
1884	45.8	47.7	53.0	55.6	62.1	63.0	65.5	66.0	62.8	58.3	55.4	51.9	57.3
1885	50.4	56.0	59.0	60.1	62.8	61.8	69.2	68.5	66.4	62.7	55.8	[49.0]	[60.1]
1886	49.6	55.5	51.0	56.9	61.7	62.0	67.0	68.2	64.9	60.5	54.2	53.8	58.8
1887	50.9	49.1	57.5	57.8	65.5	71.7	66.9	65.1	66.0	66.0	54.7	52.5	60.3
1888	44.2	50.8	49.0	57.3	57.8	61.2	68.2	67.3	65.0	65.0	[52.7]	51.3	[57.5]
1889	46.6	50.1	56.4	59.4	61.3	65.3	65.2	66.1	66.4	61.1	55.5	49.3	58.6
1890	45.0	48.7	53.3	56.2	67.3	64.3	......	......	......	......	......	......	......
Means	47.1	49.5	52.6	56.0	60.7	64.4	65.1	64.4	63.4	59.4	52.7	49.0	57.0

PINE VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	......	......	43.4	......
1876	36.5	43.6	41.5	47.9	54.2	65.4	69.0	65.5	60.6	52.5	......	......	......
Means	36.5	43.6	41.5	47.9	54.2	65.4	69.0	65.5	60.6	52.5	......	43.4	......

PLACERVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	60.4	72.0	......	......	......	......	38.4	......	......
1887	36.4	35.6	42.9	50 0	......	......	......	......	......	......	......	......	......
1888	......	......	......	......	......	......	......	73.2	71.9	57.9	49.9	46.8	......
1889	41.3	45.6	53.6	58.8	66.1	76.2	79.1	74.5	68.0	58.9	50.4	45.1	59.8
1890	37.2	43.2	49.1	57.8	64.9	68.4	......	......	......	......	......	......	......
Means	38.3	41.5	48.5	55.5	63.8	72.2	79.1	73.8	70.0	58.4	46.2	46.0	57.8

PLEASANTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	69.3	66.7	56.9	56.7	49.5	......
1878	50.4	57.0	61.0	59.2	66.0	72.3	75.0	72.0	67.5	62.0	55.0	42.4	61.6
1879	45.3	51.3	58.8	58.8	64.2	74.1	74.5	78.2	74.5	65.4	55.0	49.1	62.4

Mean monthly and annual temperature at stations in California—Continued.

PLEASANTON, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	49.1	46.5	48.5	54.2	67.6	69.4	75.7	75.4	73.7	64.6	56.9	51.2	61.1
1881	49.9	53.4	54.9	56.4	65.2	67.8	76.8	70.8	71.8	61.2	50.7	46.5	60.4
1882	46.1	45.1	53.3	58.3	62.4	70.3	76.1	74.9	70.5	62.7	55.8	46.3	60.2
1883	45.2	44.4	59.3	62.4	63.8	73.0	71.5	74.7	71.2	62.5	53.0	44.3	60.4
1884	44.5	46.0	51.1	57.6	63.7	63.7	73.6	75.3	68.2	65.5	60.5	49.9	60.0
1885	49.2	55.0	58.7	62.8	67.1	66.0	73.3	76.6	73.8	67.3	56.9	[48.6]	[62.9]
1886	51.0	55.7	52.4	57.7	63.6	69.7	73.7	76.1	70.8	60.5	53.3	53.4	61.5
1887	51.6	47.9	57.8	59.5	64.4	69.3	70.4	68.3	68.3	65.1	53.8	51.3	60.6
1888	48.1	53.7	54.9	61.8	63.4	69.8	74.7	75.7	75.7	67.8	51.3	51.6	62.4
1889	47.1	51.0	56.8	60.4	63.2	68.5	74.6	74.8	71.7	62.7	[54.9]	47.9	[61.1]
1890	46.6	50.7	......	52.0	56.1	......	......	......	......	......	......	......	......
Means	48.0	50.6	55.6	58.5	63.9	69.5	74.2	74.0	71.1	63.4	54.9	48.6	61.0

POINT REYES LIGHT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	54.1	54.2	53.9	55.4	54.0	54.6	......	55.6	56.8	49.8	......
1890	45.5	48.1	49.2	49.2	53.4	53.0	......	......	......	......	......	......	......
Means	45.5	48.1	51.6	51.7	53.6	51.7	54.0	54.6	......	55.6	56.8	49.8	......

POMONA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	57.3	60.6	62.2	68.7	69.8	72.0	79.2	78.4	76.5	71.0	63.7	58.1	67.0
1890	44.0	49.7	51.7	62.0	66.4	68.5	......	......	......	......	......	......	......
Means	50.6	55.2	57.0	65.4	68.1	70.2	79.2	78.4	76.5	71.0	63.7	58.1	66.1

PORTERSVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	90.5	81.7	72.0	......	50.1	......
1889	44.6	50.1	60.7	67.7	75.0	87.9	89.0	89.9	81.8	68.7	55.3	55.3	68.8
1890	46.3	48.2	58.4	62.9	77.7	......	......	......	......	......	......	......	......
Means	45.4	49.2	59.6	65.3	76.4	87.9	89.0	90.2	81.8	70.4	55.3	52.7	68.6

POWAY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	......	......	......	......	53.8	46.1	......
1879	47.2	52.4	55.4	56.7	58.4	65.2	66.8	70.6	67.5	60.7	52.6	51.2	58.7
1880	46.3	44.3	48.1	55.2	61.4	64.7	65.0	68.2	63.2	60.5	53.6	53.4	57.0
1881	49.7	54.0	54.2	60.7	64.1	66.1	71.6	70.9	69.4	61.7	54.4	51.3	60.7
1882	46.0	46.8	52.5	54.8	62.0	64.5	68.5	71.6	67.9	60.6	54.7	53.6	58.6
1883	50.1	51.4	56.8	56.6	60.7	69.3	71.1	70.3	70.6	59.3	55.8	54.7	60.6
1884	50.5	53.0	53.8	56.6	61.6	65.2	69.7	72.5	65.0	59.5	54.6	50.0	59.3
1885	49.4	52.0	57.3	60.1	63.3	65.2	70.8	75.8	69.3	63.4	57.7	53.6	61.5
1886	53.1	56.0	52.0	56.2	64.6	67.2	71.0	74.2	67.7	57.0	54.1	[51.7]	[60.4]
1887	50.1	51.5	57.9	57.2	61.7	67.4	71.5	68.6	68.0	62.6	55.6	[51.7]	[60.3]
1888	......	52.3	......	......	61.7	......	......	......	......	......	......	......	......
Means	49.2	51.4	54.2	57.1	62.0	66.1	69.6	71.4	67.6	60.6	54.7	51.7	59.6

PRINCETON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	......	......	71.6	68.0	55.4	46.8	......
1879	45.1	53.8	60.5	66.5	68.7	80.6	81.7	82.8	78.0	65.0	51.5	45.0	64.9
1880	41.7	47.3	50.1	56.6	63.5	75.0	81.0	76.3	74.3	65.0	51.8	50.0	61.0
1881	50.8	53.9	57.6	64.5	69.7	72.5	77.3	74.2	72.1	59.4	51.6	46.3	62.5
1882	46.5	47.5	55.0	58.9	64.6	74.7	82.8	80.2	72.6	60.4	50.3	50.1	62.0

Mean monthly and annual temperature at stations in California—Continued.

PRINCETON, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	41.1	46.6	58.7	55.3	63.6	75.0	80.1	73.1	74.4	59.5	51.3	44.3	60.2
1884	46.8	46.9	53.5	56.5	66.4	67.7	74.7	76.9	67.4	63.0	56.4	50.2	60.5
1885	48.1	54.4	62.8	62.3	69.5	69.8	76.7	79.6	73.6	65.3	[52.2]	49.0	[63.6]
1886	47.7	53.8	52.9	56.5	63.3	73.4	77.5	76.6	73.1	[63.2]	49.6	49.3	[61.4]
1887	48.7	43.9	56.5	57.2	......	......	......	......	......	......	......	......	......
Means	46.3	49.8	56.4	59.4	66.2	73.6	79.0	77.5	73.0	63.2	52.2	47.9	62.0

PUENTE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	49.5	53.9	58.5	63.0	65.9	69.9	75.2	74.9	74.8	66.4	57.5	54.7	63.7
1890	46.3	52.0	55.5	62.8	66.1	72.3	......	......	......	......	......	......	......
Means	47.9	53.0	57.0	62.9	66.0	71.1	75.2	74.9	74.8	66.4	57.5	54.7	63.4

RANCHO DEL CHINO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1851	......	......	......	......	......	......	71.9	73.7	70.1	68.6	60.4	53.6	......
1852	55.4	56.8	56.6	60.8	63.8	68.8	73.2	71.6	......	......	......	......	......
Means	55.4	56.8	56.6	60.8	63.8	68.8	72.6	72.6	70.1	68.6	60.4	53.6	63.3

RANCHO DEL JURUPA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1852	......	......	......	......	......	......	......	......	......	64.8	56.0	51.1	......
1853	56.3	54.7	59.3	64.4	63.6	71.8	76.2	74.5	74.1	69.0	57.0	53.6	64.5
1854	50.3	53.1	54.5	......	......	......	......	......	......	......	......	......	......
Means	53.3	53.9	56.9	64.4	63.6	71.8	76.2	74.5	74.1	66.9	56.5	52.4	63.7

RAVENNA (SOUTHSIDE), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	......	......	......	......	......	73.1	77.4	72.0	61.1	51.1	46.1	......
1880	46.1	43.2	46.2	54.8	64.1	69.2	71.6	73.1	70.1	60.9	49.4	50.3	58.2
1881	47.2	51.0	53.3	61.4	67.2	72.1	78.1	75.9	71.1	59.0	50.5	49.5	61.4
1882	41.8	44.1	50.4	58.3	61.6	58.8	74.7	76.2	61.4	57.4	48.8	48.6	56.8
1883	48.4	45.9	53.0	56.0	62.8	74.3	75.9	76.2	68.4	55.4	50.7	49.8	59.7
1884	46.0	45.9	48.5	54.5	63.1	65.8	73.2	80.5	67.5	59.7	53.0	47.0	58.7
1885	48.1	48.1	54.5	59.8	65.7	67.1	74.4	79.0	72.3	62.4	52.3	[49.4]	[61.1]
1886	......	......	......	......	......	72.6	76.1	78.6	75.0	58.5	52.2	53.4	[61.8]
1887	48.6	43.2	57.1	55.6	[64.6]	[63.8]	77.0	75.5	73.9	67.7	59.1	50.7	......
1888	46.0	52.3	51.5	63.5	61.5	70.0	77.2	78.2	80.1	65.2	56.0	52.1	62.8
1889	49.6	49.7	52.3	60.6	63.3	69.6	77.1	79.0	74.4	62.7	52.3	46.7	61.4
1890	39.8	51.2	53.2	57.9	62.4	......	......	......	......	......	......	......	......
Means	46.2	47.5	52.0	58.2	63.5	68.8	75.3	77.2	71.5	60.9	52.3	49.4	60.2

READING, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1852	......	......	......	58.7	......	79.1	80.4	78.8	72.3	59.8	51.8	43.4	......
1853	48.0	49.1	52.4	58.8	66.0	78.5	84.8	78.8	70.7	65.0	53.1	46.2	62.6
1854	40.0	47.3	53.6	60.4	66.9	72.5	83.8	79.8	72.4	62.2	53.8	44.8	61.5
1855	44.6	51.6	57.3	59.9	64.4	81.6	83.8	83.9	75.5	71.4	50.7	38.4	63.6
1856	45.4	52.0	60.6	......	......	......	......	......	......	......	......	......	......
Means	44.5	50.0	56.0	59.4	65.8	77.9	83.2	80.3	72.7	64.6	52.4	43.2	60.8

Mean monthly and annual temperature at stations in California—Continued.

RED BLUFF, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	50.3	44.4	56.6	57.7	71.2	77.1	84.1	77.9	74.3	70.9	54.9	45.6	63.8
1873	48.1	46.6	55.1	58.8	67.4	76.0	84.5	79.1	79.2	65.6	61.8	45.2	64.0
1874	47.2	47.5	47.1	58.1	66.4	74.6	84.5	82.0	78.7	65.1	51.7	46.8	62.5
1875	43.3	56.0	55.5	70.6	78.3	81.3	88.9	87.2	81.3	74.2	56.6	51.2	68.7
1876	46.3	50.2	52.8	60.0	67.5	82.1	80.3	81.7	78.1	69.5	59.1	51.9	65.0
1877	51.2	56.6	61.4	63.6	68.5	80.0	82.9	79.7	77.5	64.5	54.0	47.6	65.6
1878	47.3	50.2	55.5	60.4	67.4	81.0	81.9	83.2	72.9	65.4	55.7	47.0	64.0
1879	44.3	63.0	56.8	61.5	62.8	79.3	82.6	83.8	77.2	63.1	51.0	44.6	63.3
1880	44.8	46.6	50.3	56.4	65.2	76.0	85.4	77.4	74.7	65.3	50.0	49.4	61.8
1881	50.0	53.0	55.6	63.6	69.3	72.8	78.7	76.4	71.5	57.5	51.1	45.9	62.1
1882	44.1	44.4	52.5	56.6	67.4	75.6	84.3	81.2	[72.3]	58.3	[57.4]	47.5	[61.0]
1883	41.2	45.1	58.3	56.1	64.3	80.3	84.9	79.9	75.4	57.7	50.6	44.4	61.5
1884	46.2	45.9	51.6	56.8	68.0	69.6	78.4	81.5	67.3	62.1	54.7	47.5	60.8
1885	47.5	53.5	61.0	62.1	70.4	71.6	80.7	83.8	74.8	65.6	52.7	49.3	64.4
1886	46.2	54.5	52.8	57.7	66.9	79.1	82.6	81.5	75.6	60.7	51.3	50.0	63.2
1887	48.7	43.4	58.9	60.2	68.8	77.1	83.9	81.3	76.4	71.1	55.2	48.2	64.4
1888	40.9	53.9	54.5	67.0	68.1	70.7	81.2	82.4	80.2	67.0	54.0	48.0	61.0
1889	45.0	50.8	56.8	61.2	67.0	79.7	81.2	79.9	76.0	61.4	54.4	44.8	63.2
1890	39.2	45.0	50.8	60.3	67.8	72.6	......	......	......	......	......	......	......
Means	45.9	49.5	54.9	60.5	68.0	76.7	82.8	81.1	75.9	64.7	54.0	47.5	63.5

REDDING, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	......	......	......	47.3	......
1875	47.2	54.4	51.4	68.4	71.9	78.5	87.1	85.7	74.1	72.5	53.3	49.6	66.2
1876	43.2	48.5	51.4	57.8	65.6	79.5	81.2	77.8	72.6	67.9	58.5	50.3	62.9
1877	49.5	52.9	57.2	57.8	65.3	79.7	83.3	81.1	80.3	65.8	52.0	48.0	64.4
1878	46.1	47.4	52.7	60.0	68.0	81.6	85.7	86.4	76.5	67.9	52.0	46.3	64.2
1879	43.4	51.5	55.8	60.1	59.8	76.4	85.1	87.2	79.5	64.4	52.3	43.1	63.2
1880	42.5	46.5	46.6	54.8	67.2	78.5	86.7	80.0	77.2	62.6	51.0	47.3	61.7
1881	47.9	52.3	54.1	67.6	70.0	71.8	82.4	81.5	76.5	58.9	52.3	47.9	63.6
1882	43.8	46.4	52.1	54.1	[68.3]	81.6	86.5	82.6	72.6	61.3	60.4	50.0	[63.3]
1883	41.9	43.5	58.1	58.9	65.3	[76.7]	81.7	76.8	67.9	65.2	54.5	[47.6]	[61.5]
1884	......	......	......	59.9	63.9	67.8	70.3	79.3	72.6	65.6	59.1	44.9	......
1885	53.1	58.5	65.5	63.1	73.8	70.8	[83.0]	82.0	75.4	72.2	58.8	[47.6]	[67.0]
1886	46.4	[49.8]	55.3	65.5	71.3	82.4	84.6	85.7	79.5	63.7	50.3	48.7	[65.3]
1887	48.6	42.7	59.0	61.6	72.9	76.4	79.8	76.8	71.3	70.5	56.0	45.6	63.4
1888	39.2	52.4	55.3	69.6	74.2	72.5	83.0	80.9	81.5	66.4	48.5	53.9	64.8
1889	45.5	53.3	57.8	63.5	69.5	81.7	83.9	82.0	76.1	58.8	54.3	43.6	64.2
1890	39.4	46.2	53.9	63.7	65.7	71.3	......	......	......	......	......	......	......
Means	45.2	49.8	55.1	61.6	68.3	76.7	83.0	81.7	75.6	65.6	54.2	47.6	63.7

RING'S STATION, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	......	......	46.0	40.1	......
1875	39.1	43.0	44.0	54.1	59.1	61.1	68.1	68.0	63.0	61.0	45.0	43.0	54.0
1876	35.0	40.0	41.0	50.1	57.1	67.1	68.1	65.1	62.0	54.0	48.1	44.0	52.6
1877	42.1	45.1	50.1	45.1	49.1	62.1	69.1	68.1	64.0	51.1	46.0	38.1	52.5
1878	39.0	40.0	44.1	47.1	54.1	62.1	66.1	70.0	63.1	58.0	49.0	42.0	52.9
1879	40.0	42.0	52.0	50.1	55.0	61.0	69.0	62.0	68.0	55.1	47.1	42.0	53.6
1880	42.0	38.0	40.0	49.1	57.1	63.1	66.1	66.1	64.1	57.1	36.1	44.0	51.9
1881	41.1	46.0	49.1	49.1	57.0	60.1	69.2	66.2	64.0	52.0	44.0	45.1	53.6
1882	37.0	37.0	44.0	47.1	56.0	59.1	68.1	63.0	......	......	......	......	......
Means	39.4	41.4	45.5	49.0	55.6	62.0	68.0	66.1	64.0	55.5	45.2	42.3	52.8

RIO VISTA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	54.7	54.1	60.2	64.9	66.8	71.8	69.7	69.1	57.2	51.9	44.9	......
1882	44.4	45.1	52.0	55.2	64.2	......	......	......	......	......	......	......	......
Means	44.4	49.9	53.0	57.7	64.6	66.8	71.8	69.7	69.1	57.2	51.9	44.9	58.4

Mean monthly and annual temperature at stations in California—**Continued.**

RIVERSIDE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	48.0	51.0	57.0	60.2	67.8	72.4	78.6	79.8	75.1	64.9	57.0	58.5	62.4
1883	52.3	51.5	60.9	60.2	66.7	78.1	79.4	79.6	76.8	62.0	58.6	54.6	65.1
1884	52.5	54.6	55.0	60.3	67.2	71.5	77.7	78.2	69.2	63.6	59.7	51.3	63.4
1885	51.9	56.2	61.6	63.8	69.0	71.3	77.3	81.5	74.6	67.2	58.8	55.5	65.7
1886	53.7	58.0	55.2	59.6	63.7	74.1	77.0	79.2	72.8	60.7	55.1	55.4	64.1
1887	53.6	48.6	60.0	60.5	66.2	71.4	76.2	73.6	73.3	66.5	57.9	50.1	63.2
1888	48.4	51.2	53.1	62.4	62.5	70.2	76.3	75.3	74.4	64.1	56.0	51.8	62.1
1889	48.2	51.9	56.5	62.2	64.0	69.5	75.9	76.1	71.3	61.7	55.5	51.6	62.0
1890	43.0	50.2	52.5	58.0	62.5	67.1	76.1	......	......	......	......	......	......
Means	50.2	52.6	56.9	60.8	66.1	71.7	77.2	77.9	73.4	63.8	57.3	53.4	63.4

ROCKLIN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	77.8	73.4	66.1	59.1	45.1	......
1871	45.7	50.1	58.8	63.0	68.3	79.8	81.0	82.1	74.8	66.8	54.4	48.6	64.4
1872	46.8	52.0	55.6	58.5	71.4	76.5	81.4	83.1	75.7	66.3	52.6	47.3	63.9
1873	49.4	46.3	57.3	59.2	68.8	73.8	82.8	76.6	74.8	59.6	49.6	43.4	61.8
1874	40.5	42.3	47.4	58.9	69.2	77.3	82.2	79.4	72.2	61.2	52.8	42.1	60.5
1875	44.9	48.6	50.5	64.9	72.6	75.6	82.5	81.7	75.7	71.2	54.2	48.3	64.2
1876	45.1	50.9	53.9	60.9	69.6	81.2	76.7	77.2	71.7	64.5	50.5	46.1	62.4
1877	48.2	52.3	65.3	60.5	65.5	79.6	82.9	76.3	74.4	62.4	53.3	48.6	64.1
1878	47.4	50.5	55.8	58.9	69.3	79.1	77.3	77.1	69.9	60.4	52.8	44.8	61.9
1879	44.1	53.6	56.6	60.6	62.1	72.9	83.9	86.9	75.9	62.5	49.1	43.4	62.6
1880	40.8	44.9	49.5	59.7	70.1	75.0	82.8	76.6	78.0	66.6	55.4	52.4	62.6
1881	50.5	53.9	55.6	68.8	71.8	74.2	80.2	76.0	72.0	58.7	48.6	43.1	62.8
1882	44.2	44.5	52.2	58.2	68.9	73.7	[79.9]	77.9	69.2	57.3	[52.9]	47.9	[60.5]
1883	41.7	45.2	58.2	59.2	66.9	77.8	78.7	74.9	70.7	58.8	50.3	45.7	60.7
1884	48.6	47.3	53.0	57.6	66.9	69.2	75.3	81.3	68.3	58.6	53.9	45.9	60.5
1885	45.6	53.1	55.6	58.9	66.0	69.2	73.5	77.8	73.0	65.6	[52.9]	[46.7]	[61.5]
1886	51.7	54.4	52.6	58.9	67.1	77.4	79.6	76.8	69.7	59.6	51.8	50.5	62.5
1887	49.6	47.4	56.3	59.6	66.3	72.1	76.6	73.0	72.5	67.1	53.4	46.6	61.7
1888	42.7	49.8	52.5	59.7	64.0	70.2	79.9	82.1	78.4	66.8	55.0	48.5	62.5
1889	43.6	49.8	57.6	62.9	70.1	78.1	81.4	80.8	75.7	65.0	55.6	49.2	64.2
1890	44 4	49.3	53.9	62.0	68.6	73.2	......	......	......	......	......	......	......
Means	45.8	49.3	54.9	60.5	68.2	75.3	79.9	78.8	73.3	63.3	52.9	46.7	62.4

ROSS, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1837	48.3	48.1	52.2	53.2	57.6	57.3	59.5	60.9	56.3	52.6	46.7	47.8	53.4
1838	46.2	48.1	49.6	51.1	52.5	55.4	55 8	56.2	55.6	54.5	52.5	47.7	52.1
1839	49.5	51.7	51.6	51.0	54.3	57.4	57.1	59.2	54.3	52.1	49.0	50.2	53.1
1840	44.7	44.2	46.4	49.8	56.9	57.5	58.9	57.2	57.6	54.4	55.3	49.8	52.7
Means	47.2	48.0	50.0	51.3	55.3	56.9	57.8	58.4	56.0	53.4	50.9	48.9	52.8

ROSS VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	50.7	53.4	54.4	69.6	......	......	......	60.1	51.5	55.1	49.8	......
1885	47.2	53.0	55.4	57.1	59.3	61.0	65.0	64.9	64.4	60.0	55.8	51.6	57.9
1886	48.7	54.4	50.7	53.3	60.3	77.0	67.3	66.0	63.3	57.5	54.5	......	......
Means	48.0	52.7	53.2	54.9	63.1	69.0	66.2	65.4	62.6	56.3	55.1	50.7	58.1

RUMSEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	84.6	82.4	70.9	56.2	50.8	......
1889	47.4	48.9	54.1	62.8	70.3	82.0	82.9	82.9	79.4	62.3	54.3	47.6	64.6
1890	42.6	47.0	53.1	62.7	71.5	81.3	......	......	......	......	......	......	......
Means	45.0	48.0	53.6	62.8	70.9	81.6	82.9	83.8	80.9	66.6	55.2	49.2	65.0

Mean monthly and annual temperature at stations in California—Continued.

RED BLUFF, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	50.3	44.4	56.6	57.7	71.2	77.1	84.1	77.9	74.3	70.9	54.9	45.6	63.8
1873	48.1	46.6	55.1	58.8	67.4	76.0	84.5	79.1	79.2	65.6	61.8	45.2	64.0
1874	47.2	47.5	47.1	58.1	66.4	74.6	84.5	82.0	78.7	65.1	51.7	46.8	62.5
1875	43.3	56.0	55.5	70.6	78.3	81.3	88.9	87.2	81.3	74.2	56.6	51.2	68.7
1876	46.3	50.2	52.8	60.0	67.5	82.1	80.3	81.7	78.1	69.5	59.1	51.9	65.0
1877	51.2	56.6	61.4	63.6	68.5	80.0	82.9	79.7	77.5	64.5	54.0	47.6	65.6
1878	47.3	50.2	55.5	60.4	67.4	81.0	81.9	83.2	72.9	65.4	55.7	47.0	64.0
1879	44.3	63.0	56.8	61.5	62.8	79.3	82.6	83.8	77.2	63.1	51.0	44.6	63.3
1880	44.8	46.6	50.3	56.4	65.2	76.0	85.4	77.4	74.7	65.3	50.0	49.4	61.8
1881	50.0	53.0	55.6	63.6	69.3	72.8	78.7	76.4	71.5	57.5	51.1	45.9	62.1
1882	44.1	44.4	52.5	56.6	67.4	75.6	84.3	81.2	[72.3]	58.3	[57.4]	47.5	[61.0]
1883	41.2	45.1	58.3	56.1	64.3	80.3	84.9	79.9	75.4	57.7	50.6	44.4	61.5
1884	46.2	45.9	51.6	56.8	68.0	69.6	78.4	81.5	67.3	62.1	54.7	47.5	60.8
1885	47.5	53.5	61.0	62.1	70.4	71.6	80.7	83.8	74.8	65.6	52.7	49.3	64.4
1886	46.2	54.5	52.8	57.7	66.9	79.1	82.6	81.5	75.6	60.7	51.3	50.0	63.2
1887	48.7	43.4	58.9	60.2	68.8	77.1	83.9	81.3	76.4	71.1	55.2	48.2	64.4
1888	40.9	53.9	54.5	67.0	68.1	70.7	81.2	82.4	80.2	67.0	54.0	48.0	61.0
1889	45.0	50.8	56.8	61.2	67.0	79.7	81.2	79.9	76.0	61.4	54.4	44.8	63.2
1890	39.2	45.0	50.8	60.3	67.8	72.6	......	......	......	......	......	......	......
Means	45.9	49.5	54.9	60.5	68.0	76.7	82.8	81.1	75.9	64.7	54.0	47.5	63.5

REDDING, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	......	......	......	47.3	......
1875	47.2	54.4	51.4	68.4	71.9	78.5	87.1	85.7	74.1	72.5	53.3	49.6	66.2
1876	43.2	48.5	51.4	57.8	65.6	79.5	81.2	77.8	72.6	67.9	58.5	50.3	62.9
1877	49.5	52.9	57.2	57.8	65.3	79.7	83.3	81.1	80.3	65.8	52.0	48.0	64.4
1878	46.1	47.4	52.7	60.0	68.0	81.6	85.7	86.4	76.5	67.9	52.0	46.3	64.2
1879	43.4	51.5	55.8	60.1	59.8	76.4	85.1	87.2	79.5	64.4	52.3	43.1	63.2
1880	42.5	46.5	46.6	54.8	67.2	78.5	86.7	80.0	77.2	62.6	51.0	47.3	61.7
1881	47.9	52.3	54.1	67.6	70.0	71.8	82.4	81.5	76.5	58.9	52.3	47.9	63.6
1882	43.8	46.4	52.1	54.1	[68.3]	81.6	86.5	82.6	72.6	61.3	60.4	50.0	[63.3]
1883	41.9	43.5	58.1	58.9	65.3	[76.7]	81.7	76.8	67.9	65.2	54.5	[47.6]	[61.5]
1884	......	......	......	59.9	63.9	67.8	70.3	79.3	72.6	65.6	59.1	44.9	......
1885	53.1	58.5	65.5	63.1	73.8	70.8	[83.0]	82.0	75.4	72.2	58.8	[47.6]	[67.0]
1886	46.4	[49.8]	55.3	65.5	71.3	82.4	84.6	85.7	79.5	63.7	50.3	48.7	[65.3]
1887	48.6	42.7	59.0	61.6	72.9	76.4	79.8	76.8	71.3	70.5	56.0	45.6	63.4
1888	39.2	52.4	55.3	69.6	74.2	72.5	83.0	80.9	81.5	66.4	48.5	53.9	64.8
1889	45.5	53.3	57.8	63.5	69.5	81.7	83.9	82.0	76.1	58.8	54.3	43.6	64.2
1890	39.4	46.2	53.9	63.7	65.7	71.3	......	......	......	......	......	......	......
Means	45.2	49.8	55.1	61.6	68.3	76.7	83.0	81.7	75.6	65.6	54.2	47.6	63.7

RING'S STATION, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	......	......	46.0	40.1	......
1875	39.1	43.0	44.0	54.1	59.1	61.1	68.1	68.0	63.0	61.0	45.0	43.0	54.0
1876	35.0	40.0	41.0	50.1	57.1	67.1	68.1	65.1	62.0	54.0	48.1	44.0	52.6
1877	42.1	45.1	50.1	45.1	49.1	62.1	69.1	68.1	64.0	51.1	46.0	38.1	52.5
1878	39.0	40.0	44.1	47.1	54.1	62.1	66.1	70.0	63.1	58.0	49.0	42.0	52.9
1879	40.0	42.0	52.0	50.1	55.0	61.0	69.0	62.0	68.0	55.1	47.1	42.0	53.6
1880	42.0	38.0	40.0	49.1	57.1	63.1	66.1	66.1	64.1	57.1	36.1	44.0	51.9
1881	41.1	46.0	49.1	49.1	57.0	60.1	69.2	66.2	64.0	52.0	44.0	45.1	53.6
1882	37.0	37.0	44.0	47.1	56.0	59.1	68.1	63.0	......	......	......	......	......
Means	39.4	41.4	45.5	49.0	55.6	62.0	68.0	66.1	64.0	55.5	45.2	42.3	52.8

RIO VISTA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	54.7	54.1	60.2	64.9	66.8	71.8	69.7	69.1	57.2	51.9	44.9	......
1882	44.4	45.1	52.0	55.2	64.2	......	......	......	......	......	......	......	......
Means	44.4	49.9	53.0	57.7	64.6	66.8	71.8	69.7	69.1	57.2	51.9	44.9	58.4

Mean monthly and annual temperature at stations in California—Continued.

RIVERSIDE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	48.0	51.0	57.0	60.2	67.8	72.4	78.6	79.8	75.1	64.9	57.0	56.5	62.4
1883	52.3	51.5	60.9	60.2	66.7	78.1	79.4	79.6	76.8	62.0	58.6	54.6	65.1
1884	52.5	54.6	55.0	60.3	67.2	71.5	77.7	78.2	69.2	63.6	59.7	51.3	63.4
1885	51.9	56.2	61.6	63.8	69.0	71.3	77.3	81.5	74.6	67.2	58.8	55.5	65.7
1886	53.7	58.0	55.2	59.6	63.7	74.1	77.0	79.2	72.8	60.7	55.1	55.4	64.1
1887	53.6	48.6	60.0	60.5	66.2	71.4	76.2	73.6	73.3	66.5	57.9	50.1	63.2
1888	48.4	51.2	53.1	62.4	62.5	70.2	76.3	75.3	74.4	64.1	56.0	51.8	62.1
1889	48.2	51.9	56.5	62.2	64.0	69.5	75.9	76.1	71.3	61.7	55.5	51.6	62.0
1890	43.0	50.2	52.5	58.0	62.5	67.1	76.1	......	......	......	......	......	......
Means	50.2	52.6	56.9	60.8	66.1	71.7	77.2	77.9	73.4	63.8	57.3	53.4	63.4

ROCKLIN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	77.8	73.4	66.1	59.1	45.1	......
1871	45.7	50.1	58.8	63.0	68.3	79.8	81.0	82.1	74.8	66.8	54.4	48.6	64.4
1872	46.8	52.0	55.6	58.5	71.4	76.5	81.4	83.1	75.7	66.3	52.6	47.3	63.9
1873	49.4	46.3	57.3	59.2	68.8	73.8	82.8	76.6	74.8	59.6	49.6	43.4	61.8
1874	40.5	42.3	47.4	58.9	69.2	77.3	82.2	79.4	72.2	61.2	52.8	42.1	60.5
1875	44.9	48.6	50.5	64.9	72.6	75.6	82.5	81.7	75.7	71.2	54.2	48.3	64.2
1876	45.1	50.9	53.9	60.9	69.6	81.2	76.7	77.2	71.7	64.5	50.5	46.1	62.4
1877	48.2	52.3	65.3	60.5	65.5	79.6	82.9	76.3	74.4	62.4	53.3	48.6	64.1
1878	47.4	50.5	55.8	58.9	69.3	79.1	77.3	77.1	69.9	60.4	52.8	44.8	61.9
1879	44.1	53.6	56.6	60.6	62.1	72.9	83.9	86.9	75.9	62.5	49.1	43.4	62.6
1880	40.8	44.9	49.5	59.7	70.1	75.0	82.8	76.6	78.0	66.6	55.4	52.4	62.6
1881	50.5	53.9	55.6	68.8	71.8	74.2	80.2	76.0	72.0	58.7	48.6	43.1	62.8
1882	44.2	44.5	52.2	58.2	68.9	73.7	[79.9]	77.9	69.2	57.3	[52.9]	47.9	[60.5]
1883	41.7	45.2	58.2	59.2	66.9	77.8	78.7	74.9	70.7	58.8	50.3	45.7	60.7
1884	48.6	47.3	53.0	57.6	66.9	69.2	75.3	81.3	68.3	58.6	53.9	45.9	60.5
1885	45.6	53.1	55.6	58.9	66.0	69.2	73.5	77.8	73.0	65.6	[52.9]	[46.7]	[61.5]
1886	51.7	54.4	52.6	58.9	67.1	77.4	79.6	76.8	69.7	59.6	51.8	50.5	62.5
1887	49.6	47.4	56.3	59.6	66.3	72.1	76.6	73.0	72.5	67.1	53.4	46.6	61.7
1888	42.7	49.8	52.5	59.7	64.0	70.2	79.9	82.1	78.4	66.8	55.0	48.5	62.5
1889	43.6	49.8	57.6	62.9	70.1	78.1	81.4	80.8	75.7	65.0	55.6	49.2	64.2
1890	44.4	49.3	53.9	62.0	68.6	73.2	......	......	......	......	......	......	......
Means	45.8	49.3	54.9	60.5	68.2	75.3	79.9	78.8	73.3	63.3	52.9	46.7	62.4

ROSS, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1837	48.3	48.1	52.2	53.2	57.6	57.3	59.5	60.9	56.3	52.6	46.7	47.8	53.4
1838	46.2	48.1	49.6	51.1	52.5	55.4	55.8	56.2	55.6	54.5	52.5	47.7	52.1
1839	49.5	51.7	51.6	51.0	54.3	57.4	57.1	59.2	54.3	52.1	49.0	50.2	53.1
1840	44.7	44.2	46.4	49.8	56.9	57.5	58.9	57.2	57.6	54.4	55.3	49.8	52.7
Means	47.2	48.0	50.0	51.3	55.3	56.9	57.8	58.4	56.0	53.4	50.9	48.9	52.8

ROSS VALLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	50.7	53.4	54.4	69.6	......	......	......	60.1	51.5	55.1	49.8	......
1885	47.2	53.0	55.4	57.1	59.3	61.0	65.0	64.9	61.4	60.0	55.8	51.6	57.9
1886	48.7	54.4	50.7	53.3	60.3	77.0	67.3	66.0	63.3	57.5	54.5	......	......
Means	48.0	52.7	53.2	54.9	63.1	69.0	66.2	65.4	62.6	56.3	55.1	50.7	58.1

RUMSEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	84.6	82.4	70.9	56.2	50.8	......
1889	47.4	48.9	54.1	62.8	70.3	82.0	82.9	82.9	79.4	62.3	54.3	47.6	64.6
1890	42.6	47.0	53.1	62.7	71.5	81.3	......	......	......	......	......	......	......
Means	45.0	48.0	53.6	62.8	70.9	81.6	82.9	83.8	80.9	66.6	55.2	49.2	65.0

Mean monthly and annual temperature at stations in California—Continued.

SACRAMENTO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1849	......	......	......	......	......	......	72.2	69.6	64.4	64.0	51.5	45.6	......
1853	43.0	50.0	59.8	61.0	68.0	77.0	75.0	71.0	76.0	68.8	53.0	48.0	62.6
1854	43.0	51.0	53.0	60.0	62.0	67.0	80.6	69.5	65.0	60.0	55.0	47.9	59.5
1855	43.7	52.5	54.8	58.1	60.2	71.1	72.6	73.0	68.0	63.0	50.6	46.0	59.5
1856	48.0	52.6	57.0	58.8	63.9	71.1	75.1	69.6	70.9	58.0	52.2	43.9	60.1
1857	48.5	50.2	56.4	63.3	65.5	71.9	71.4	71.3	67.9	61.5	53.2	47.4	60.7
1858	45.0	52.2	53.7	59.8	65.2	69.4	70.8	70.6	68.9	59.5	54.2	44.5	59.5
1859	44.9	50.5	51.5	57.1	63.0	74.8	69.1	67.2	65.9	63.3	54.0	43.5	58.7
1860	46.2	49.8	53.3	57.8	58.5	65.6	73.2	73.5	67.6	59.8	53.5	49.3	59.0
1861	47.1	52.2	55.0	60.6	63.7	66.2	73.6	69.7	67.8	59.9	53.6	50.9	60.0
1862	46.4	47.5	53.6	58.0	61.2	69.3	73.2	75.0	70.4	67.6	53.2	46.4	60.2
1863	46.9	48.0	57.6	59.5	67.1	69.1	75.6	70.7	69.0	62.8	52.7	46.5	60.5
1864	49.2	53.6	56.1	62.1	68.5	71.1	74.8	74.7	69.8	64.5	53.5	50.2	62.3
1865	47.4	49.0	53.6	59.4	70.2	73.5	74.0	71.7	68.8	63.1	56.9	44.1	61.0
1866	46.5	53.5	54.2	61.9	63.1	72.2	76.2	76.0	72.2	65.2	53.8	50.2	62.1
1867	48.2	47.8	50.7	59.7	64.4	70.3	73.8	71.7	68.8	62.7	54.8	46.8	60.0
1868	47.0	50.5	55.0	60.1	64.2	69.5	73.8	71.2	68.3	62.0	53.9	47.0	60.2
1869	47.6	49.9	53.6	59.0	64.2	70.8	74.4	71.3	69.9	63.1	54.0	46.5	60.4
1870	48.6	51.1	53.0	57.0	61.0	69.3	71.8	72.6	68.0	63.6	53.4	45.5	59.6
1871	48.3	49.4	56.0	59.2	61.5	70.1	70.2	72.0	67.4	62.2	50.2	48.7	59.6
1872	48.5	53.3	56.8	57.6	67.0	69.2	71.4	73.1	68.8	58.9	51.2	49.0	60.4
1873	52.7	48.2	56.8	60.0	67.9	71.7	73.2	66.3	69.9	61.4	57.5	47.7	61.1
1874	45.7	49.3	52.9	59.5	64.7	70.2	72.8	70.9	70.7	61.7	53.9	45.0	59.8
1875	46.9	52.7	53.7	63.0	68.1	70.6	73.3	72.5	77.5	69.9	56.7	45.0	62.5
1876	48.8	50.2	54.6	59.5	65.7	76.9	74.0	72.8	70.1	63.5	53.3	48.0	61.4
1877	49.1	55.0	59.0	60.2	64.5	72.5	75.0	72.9	72.7	62.9	54.7	48.6	62.3
1878	49.7	51.3	56.7	59.4	65.5	71.8	73.4	73.4	69.0	62.9	55.5	47.2	61.3
1879	45.5	55.0	57.4	60.3	60.2	72.1	71.8	74.7	70.4	61.5	50.9	43.9	60.3
1880	43.5	46.0	48.8	54.6	61.6	66.6	70.9	69.7	68.0	62.1	49.7	45.3	57.2
1881	49.2	53.5	55.5	60.8	64.8	66.2	71.1	68.2	67.8	56.8	50.8	46.2	59.2
1882	45.1	46.3	53.0	55.8	64.0	68.1	73.4	71.9	68.4	58.4	49.5	48.2	58.5
1883	41.9	46.0	56.9	56.0	62.6	72.6	73.1	71.4	71.6	58.2	50.5	44.2	58.8
1884	46.6	46.9	52.9	56.7	64.0	65.8	71.2	72.5	64.8	59.9	55.3	48.8	58.8
1885	47.1	54.0	59.1	60.6	65.7	66.2	71.0	73.0	69.8	64.3	54.4	49.1	61.2
1886	45.7	53.3	52.1	55.5	62.0	69.0	72.0	71.6	67.9	57.1	50.4	49.2	58.8
1887	48.5	44.7	57.8	58.3	62.9	69.1	70.2	69.1	70.4	66.5	54.7	46.9	59.9
1888	42.8	52.6	53.6	62.3	61.8	67.7	73.4	76.8	75.4	65.2	54.0	48.4	61.2
1889	44.7	50.2	57.4	61.2	64.2	70.1	72.8	74.0	71.9	61.7	54.2	48.5	60.9
1890	42.6	47.4	52.6	59.0	65.4	67.8	......	......	......	......	......	......	......
Means	46.6	50.5	54.9	59.3	64.2	70.1	73.0	71.8	69.5	62.3	53.3	47.1	60.2

SALINAS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	......	......	......	......	64.0	61.6	60.4	58.6	56.0	51.4	42.8	......
1873	51.8	45.8	51.6	......	59.7	......	......	64.2	61.0	57.9	55.4	51.5	......
1874	51.0	49.7	51.5	57.2	62.3	64.2	63.7	64.7	65.0	61.0	54.2	46.1	57.6
1875	47.8	56.5	50.6	54.9	55.2	59.5	58.6	56.1	56.0	55.3	56.0	53.0	55.0
1876	48.4	53.0	53.0	57.0	58.8	63.6	63.9	61.8	62.4	59.8	52.9	50.0	57.0
1877	54.6	56.0	58.0	55.0	59.4	65.1	64.3	61.8	64.4	56.9	57.6	51.3	58.7
1878	51.6	52.0	54.0	55.8	58.4	58.7	60.3	59.6	59.7	61.3	54.7	50.3	56.4
1879	48.2	53.3	56.4	57.5	57.5	57.8	57.8	60.3	60.2	56.5	51.7	49.5	55.6
1880	46.7	47.1	48.4	53.9	58.5	55.9	57.1	58.8	56.9	57.4	51.5	52.2	53.7
1881	52.5	54.0	53.9	57.5	59.4	61.7	62.9	59.9	58.0	50.0	49.2	46.8	55.5
1882	44.0	44.9	52.4	54.7	62.8	60.8	63.0	59.5	60.1	54.9	49.2	50.9	54.8
1883	44.3	48.0	54.8	54.9	68.2	64.4	62.5	61.9	62.0	56.0	50.8	49.4	56.4
1884	46.5	49.3	53.9	56.4	63.3	63.9	63.4	63.1	61.4	58.9	52.7	49.0	56.8
1885	47.6	49.0	53.7	61.0	61.3	61.7	63.4	61.2	62.4	54.0	54.9	[49.6]	[56.6]
1886	47.9	52.0	49.8	55.2	61.8	58.4	62.7	66.1	63.5	56.5	49.2	51.8	56.2
1887	47.7	45.2	55.1	54.6	60.5	64.2	60.1	59.3	60.3	61.1	51.3	45.8	55.4
1888	44.1	49.7	48.6	56.2	58.1	68.4	66.2	60.3	59.3	57.3	50.8	52.2	55.9
1889	44.0	47.8	53.9	57.8	59.0	60.1	60.3	60.0	65.0	58.4	53.6	51.2	55.9
1890	43.9	46.2	51.7	55.7	57.5	58.8	......	......	......	......	......	......	......
Means	47.9	50.0	52.8	56.2	60.1	61.7	61.9	61.1	60.9	57.2	52.6	49.6	56.0

Mean monthly and annual temperature at stations in California—Continued.

SALTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	....	....	67.8	79.8	79.2	92.5	95.3	95.6	86.9	74.2	61.9	57.5	....
1890	50.4	57.3	65.4	55.7	81.7	88.6	....	....	....	....	....	....	....
Means	50.4	57.3	66.6	67.8	80.4	90.6	95.3	95.6	86.9	74.2	61.9	57.5	73.7

SAN ARDO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	....	....	....	....	....	....	....	....	....	61.6	51.5	50.5	....
1887	48.0	46.7	56.8	57.7	63.7	67.7	68.2	68.4	67.4	63.1	52.8	46.4	58.9
1888	44.6	50.8	52.0	60.0	62.7	70.1	69.4	69.9	70.5	62.0	54.9	51.9	59.9
1889	46.4	48.9	57.4	60.6	62.6	67.6	68.3	69.6	69.0	61.3	54.5	49.7	59.7
1890	43.5	46.7	53.3	57.3	53.3	68.7	....	....	....	....	....	....	....
Means	45.6	48.3	54.9	58.9	60.6	68.5	68.6	69.3	69.0	62.0	53.4	49.6	59.1

SAN BENITO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1861	....	....	....	....	63.6	66.8	70.7	67.0	....	62.8	55.0	54.5	....
1862	48.2	48.0	52.3	56.1	52.8	64.4	66.4	....	....	61.8	....	....	....
1863	44.7	45.6	55.4	57.5	62.4	....	67.8	....	....	....	....	....	....
Means	46.4	46.8	53.8	56.8	59.6	65.6	68.3	67.0	....	62.3	55.0	54.5	....

SAN BUENAVENTURA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	....	....	....	....	59.5	62.5	64.2	64.0	64.3	62.6	58.4	55.5	....
1879	52.1	54.3	58.0	56.1	57.2	61.2	61.7	62.9	60.6	61.8	[57.9]	52.3	[58.0]
1880	52.1	47.9	51.6	53.8	58.4	58.1	60.6	61.0	61.4	61.5	59.1	55.5	56.8
1881	54.7	56.7	54.1	59.0	58.3	60.9	62.7	63.6	62.3	59.2	58.3	55.0	58.7
1882	[52.6]	50.0	53.3	53.9	57.4	60.0	61.2	63.9	59.5	60.5	55.8	54.8	[56.9]
1883	51.7	....	....	....	....	....	....	....	....	....	....	....	....
Means	52.6	52.2	54.2	55.7	58.2	60.5	62.1	63.1	61.6	61.1	57.9	54.6	57.8

SAN DIEGO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1849	....	....	....	....	....	....	74.3	75.3	69.9	64.0	56.5	51.2	....
1850	51.2	52.5	54.8	59.3	61.8	64.0	67.4	74.5	71.4	66.2	56.6	48.9	60.7
1851	51.3	50.4	55.1	....	....	....	....	....	....	....	56.5	52.9	....
1852	53.1	55.9	55.0	57.6	61.2	67.1	73.2	72.5	73.6	65.0	57.3	51.9	62.0
1853	53.8	53.0	57.7	62.6	63.3	68.4	72.8	72.9	70.7	68.8	60.4	56.2	63.4
1854	54.2	55.0	56.4	63.3	60.7	64.1	73.1	72.1	66.7	64.0	58.7	55.5	62.0
1855	52.6	56.2	58.4	62.3	64.0	68.8	70.9	72.0	68.3	66.6	56.4	52.4	62.4
1856	51.0	53.5	56.2	60.0	61.0	68.6	72.3	72.5	68.8	61.6	56.2	50.0	61.0
1857	52.4	53.6	58.8	62.6	64.4	69.1	67.3	72.8	68.4	63.9	57.2	51.8	61.9
1858	51.2	56.0	55.1	57.8	62.8	66.5	69.2	69.8	69.6	63.5	58.6	53.1	61.1
1859	54.5	54.8	55.3	56.2	60.1	67.0	69.7	68.4	66.6	65.1	60.1	55.3	61.1
1860	51.4	53.9	59.0	60.4	61.9	64.5	68.8	70.8	69.1	63.6	56.9	55.2	61.3
1861	51.4	56.5	57.7	63.8	65.7	67.6	73.1	72.3	69.3	64.6	59.8	58.1	63.3
1862	55.6	51.8	56.8	59.4	62.7	68.2	71.2	72.9	69.4	65.8	60.4	55.4	62.5
1863	52.8	52.8	59.9	61.0	62.6	64.6	68.0	68.1	68.9	65.7	59.0	55.8	61.6
1864	56.0	56.2	58.5	61.8	65.2	69.0	69.7	75.1	69.2	64.6	59.1	56.5	63.4
1865	55.6	54.7	57.8	59.8	64.3	65.7	67.7	71.8	68.2	65.2	62.1	52.2	62.1
1866	54.5	57.0	57.9	62.7	60.5	66.6	69.7	73.1	69.6	65.0	60.4	58.6	63.0
1867	55.2	53.2	55.4	61.7	63.6	69.1	70.5	74.5	71.7	64.0	63.2	63.3	63.8
1868	54.5	56.5	57.4	61.3	62.3	65.7	69.4	74.1	72.2	66.1	62.1	55.4	63.1
1869	56.6	55.6	59.8	62.1	62.2	64.4	68.8	70.3	68.3	66.3	61.1	50.6	62.2
1870	55.6	57.5	56.3	58.8	61.4	64.6	68.3	70.5	66.9	63.6	59.4	51.4	61.2
1871	53.5	52.2	56.7	57.7	63.6	65.1	71.4	72.1	68.3	65.6	58.3	56.8	61.8
1872	52.7	55.2	56.4	56.0	60.4	64.9	66.6	68.9	66.0	62.5	59.4	55.4	60.4
1873	56.7	53.3	56.7	58.0	60.0	62.7	67.0	69.0	67.7	62.0	60.3	54.3	60.6
1874	54.7	52.6	52.6	56.2	60.5	63.2	68.3	68.1	65.7	63.2	56.7	53.3	59.6
1875	53.4	54.6	55.0	57.8	62.6	64.6	68.3	71.2	67.7	67.2	60.3	56.9	61.6

***Mean monthly and annual temperature at stations in California*—Continued.**

SAN DIEGO, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	51.9	55.9	54.9	59.0	60.9	65.2	68.3	68.8	66.3	64.6	59.4	56.8	61.0
1877	57.4	57.9	58.9	58.3	60.3	66.3	68.4	68.4	68.0	63.9	60.6	56.8	62.1
1878	55.6	56.0	56.7	58.1	61.5	64.1	66.8	68.3	67.3	62.0	57.5	53.5	60.6
1879	52.3	54.8	57.9	58.1	60.1	64.1	65.7	68.6	66.6	62.6	56.2	53.9	60.1
1880	52.5	50.8	52.1	56.5	60.6	63.0	63.4	65.8	63.1	61.2	56.2	56.9	58.5
1881	52.8	55.7	54.3	60.8	62.3	64.1	67.2	68.2	66.7	61.5	56.8	55.0	60.4
1882	50.4	51.2	55.1	56.6	61.9	64.3	66.7	70.2	66.8	62.0	57.0	55.7	59.8
1883	53.4	53.9	57.4	57.4	60.6	66.6	68.7	68.9	69.7	61.7	58.7	57.5	61.2
1884	55.0	55.9	56.5	57.6	61.4	64.4	68.4	69.5	65.1	61.3	58.6	54.4	60.7
1885	54.0	55.4	59.6	62.0	63.3	64.3	67.6	71.8	68.0	63.9	59.6	57 1	62.2
1886	55.9	58.5	55.0	57.2	60.4	63.1	67.1	70.5	66.6	59.7	56.0	56.0	60.5
1887	54.3	52.9	57.2	59.0	62.1	64.6	66.5	66.2	65.7	64.5	59.2	54.6	60.6
1888	51.6	54.9	55.8	60.8	61.2	66.0	68.4	69.2	69.7	65.0	59.9	58.2	61.7
1889	54.8	58.0	59.2	60.4	60.8	64.0	67.6	70.8	70.2	65.4	62.0	57.4	62.6
1890	51.0	54.3	56.4	58.6	60.4	64.1	......	......	......	......	......	......	......
Means	53.6	54.6	56.7	59.5	61.9	65.6	68.9	70.8	68.3	64.1	58.8	54.9	61.5

SAN FERNANDO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	59.1	59.2	55.1	......
1878	49.1	51.0	57.4	60.1	66.5	71.6	76.5	76.8	73.0	66.3	60.2	55.6	63.7
1879	50.4	57.1	61.2	61.7	64.8	69.6	74.2	79.5	75.8	67.2	56.7	52.2	64.2
1880	52.0	50.0	52.0	57.6	67.1	67.6	68.4	73.1	70.0	67.1	57.7	55.7	61.5
1881	52.7	56.5	57.3	60.8	67.7	69.5	73.0	72.6	71.2	62.7	57.4	55.5	63.1
1882	46.1	48.6	56.1	61.8	65.5	65.8	73.7	77.3	77.2	64.9	56.3	56.6	62.5
1883	49.0	53.8	57.7	59.8	63.6	73.8	73.2	74.8	74.8	63.1	61.0	56.9	63.5
1884	52.7	52.9	53.6	57.8	63.1	69.0	72.4	75.0	67.9	62.4	60.3	50.4	61.5
1885	53.8	58.5	60.9	61.1	64.1	68.4	73.7	80.9	76.3	67.0	59.4	[54.4]	[64.9]
1886	51.4	60.5	[57.6]	59.7	71.8	76.5	84.3	83.8	77.6	67.3	64.4	[54.4]	[67.4]
1887	57.1	54.7	64.9	70.6	74.9	77.1	78.9	80.4	[74.0]	70.0	67.1	54.3	[68.7]
1888	44.6	52.4	55.6	69.5	62.1	75.1	76.4	74.9	76.7	68.2	58.2	55.1	64.1
1889	48.5	55.2	57.4	64.8	63.2	67.9	76.7	80.6	73.5	63.9	59.5	50.8	63.5
Means	50.6	54.3	57.6	62.1	66.2	71.0	75.1	77.5	74.0	65.3	59.8	54.4	64.0

SAN FRANCISCO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1854	47.2	51.4	52.4	58.1	55.7	57.6	60.2	59.2	59.2	59.5	56.2	52.1	55.7
1855	......	......	57.6	......	......	......	......	......	......	......	......	......	......
1856	......	51.8	......	......	......	......	......	......	......	......	......	......	......
1857	51.6	51.7	56.2	59.6	57.2	61.1	59.9	59.8	62.3	61.6	56.4	51.8	57.4
1858	49.3	54.9	53.7	56.3	58.3	59.1	59.2	59.6	62.0	59.1	56.3	47.0	56.2
1859	49.2	50.9	51.1	53.7	57.4	60.6	57.6	59.5	60.7	60.3	54.4	48.8	55.4
1861	50.0	[53.5]	[54.9]	56.8	55.8	57.0	57.9	57.3	59.9	59.5	54.8	53.6	[55.9]
1862	48.2	48.8	52.2	52.7	55.0	59.4	59.2	59.0	59.5	60.4	55.0	50.7	55.0
1863	49.2	48.4	52.9	54.9	56.0	54.8	57.7	58.0	60.5	59.0	52.6	49.9	54.5
1864	51.4	53.4	53.7	56.3	58.2	57.5	56.6	59.0	59.5	57.9	53.6	50.8	55.7
1865	48.7	48.0	49.2	51.6	58.0	[58.0]	58.3	57.4	61.0	55.7	55.3	44.6	53.8
1866	46.6	50.1	51.1	54.6	53.9	56.9	55.8	56.0	57.3	58.0	54.0	54.8	54.1
1867	49.4	47.3	......	......	......	......	......	......	59.4	57.4	55.5	53.5	......
1868	45.2	50.3	53.4	53.6	55.7	55.6	56.4	56.7	56.2	58.8	54.7	50.5	53.9
1871	......	......	51.3	53.3	54.3	56.9	56.6	57.9	60.4	61.8	54.9	52.9	......
1872	52.2	54.2	54.2	53.4	55.9	59.2	57.9	59.7	59.3	58.7	56.1	52.1	56.1
1873	54.6	50.4	54.5	54.6	55.4	57.1	58.0	59.4	58.3	59.7	57.7	50.6	55.9
1874	49.2	51.1	50.9	54.9	57.5	59.1	57.7	58.9	61.3	59.8	56.6	50.9	55.7
1875	49.5	51.5	51.8	54.7	56.6	58.3	57.8	58.0	58.3	61.2	57.4	51.7	55.6
1876	49.1	53.0	53.2	54.7	55.9	60.8	58.6	58.8	60.7	59.6	57.9	53.2	56.3
1877	54.6	55.7	56.8	54.2	55.3	61.7	59.9	59.0	61.7	58.6	56.9	52.8	57.3
1878	53.2	53.4	55.8	55.5	57.3	58.0	57.8	58.1	59.4	61.3	57.1	51.6	56.5
1879	48.7	54.3	57.0	56.1	55.7	59.1	57.9	59.7	60.7	60.6	54.4	49.4	56.1
1880	47.4	47.9	48.9	52.6	57.1	56.0	57.9	58.3	58.3	58.9	53.9	53.0	54.2
1881	53.7	54.9	53.8	57.1	56.7	57.5	58.7	57.9	58.6	55.9	54.2	50.5	55.8
1882	48.8	48.0	52.9	52.3	56.2	57.0	58.4	57.6	58.6	58.1	52.5	51.9	54.4
1883	46.5	47.9	53.0	52.4	56.8	59.9	58.8	57.9	62.1	57.1	53.5	50.2	54.7
1884	50.0	50.0	54.0	55.0	58.2	59.0	60.0	58.7	58.3	56.9	56.5	52.5	55.8
1885	50.6	54.4	56.6	57.1	57.2	56.9	60.5	58.5	60.7	59.5	57.3	53.5	56.9
1886	50.9	55.8	52.6	54.9	57.8	57.9	59.1	58.5	60.5	57.1	55.1	53.1	56.1

***Mean monthly and annual temperature at stations in California*—Continued.**

SAN FRANCISCO, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	51.8	47.0	54.3	54.5	55.8	58.0	55.2	56.3	60.4	62.9	55.2	51.7	55.3
1888	46.3	52.8	52.5	56.2	55.4	61.0	61.4	60.8	62.6	61.6	57.0	53.2	56.7
1889	50.4	54.0	57.2	58.8	58.8	60.2	58.8	60.4	64.6	61.8	58.6	51.3	57.9
1890	46.2	49.1	53.8	54.8	59.8	59.2	......	......	......	......	......	......	......
Means	49.7	51.4	53.5	55.0	56.6	58.4	58.3	58.5	60.1	59.3	55.5	51.4	55.6

SAN FRANCISCO (ALCATRAZ ISLAND), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	......	55.0	54.4	53.8	......	......	......	......	......	......	......	52.2	......
1861	53.0	54.1	53.9	55.1	54.0	54.3	54.0	54.3	......	58.8	55.6	54.6	[55.0]
1862	49.5	49.8	52.8	53.0	54.0	57.4	56.8	56.6	57.8	59.3	58.0	55.3	55.0
1863	53.4	52.0	54.2	53.9	54.3	54.8	55.1	57.1	59.3	60.0	57.2	54.7	55.5
1864	54.7	58.4	55.7	56.0	......	......	......	......	......	......	......	......	......
1865	......	......	......	......	......	......	......	......	......	......	60.9	54.4	......
1866	53.0	58.5	56.1	57.5	......	......	......	......	58.4	60.5	59.8	57.1	......
1867	53.6	54.0	52.8	55.9	56.1	56.5	59.4	57.2	60.8	59.1	58.5	57.0	56.7
1868	48.1	53.9	53.6	54.5	55.6	55.1	55.1	55.8	56.5	59.9	60.5	58.2	55.6
1869	56.1	56.3	58.6	60.2	60.7	61.5	63.5	61.3	63.4	62.6	60.1	53.9	59.8
1870	57.6	56.4	54.5	55.2	57.2	56.8	60.9	62.4	61.3	62.3	60.3	54.4	58.3
1871	53.3	52.6	54.6	53.9	54.5	54.6	55.4	56.2	58.0	60.6	56.5	53.4	55.3
1872	52.9	58.3	53.4	54.2	54.2	57.1	55.4	57.4	57.8	57.4	56.4	51.9	55.1
1873	55.0	50.5	53.5	54.2	54.5	55.6	55.3	57.6	56.3	59.3	57.4	50.2	55.0
1874	49.2	51.1	50.9	[55.0]	[56.0]	57.6	55.8	57.9	59.2	59.4	57.0	51.2	[55.0]
1875	48.9	51.8	52.6	53.9	58.4	57.6	56.8	57.2	57.4	60.0	56.8	52.1	55.3
1876	49.2	52.7	54.0	56.7	59.1	60.4	59.1	57.9	60.0	59.2	59.0	54.3	56.8
1877	54.8	56.3	57.1	56.3	59.6	60.0	59.6	58.4	60.9	59.0	57.4	53.0	58.7
1878	51.8	52.0	54.3	54.6	56.3	56.6	56.3	56.4	57.3	59.8	56.9	52.0	55.4
1879	48.3	52.5	55.2	54.7	55.6	56.0	55.6	56.1	57.5	59.4	52.8	47.5	54.3
1880	47.2	46.8	50.0	53.1	58.7	56.2	53.9	55.9	56.5	58.2	51.9	48.5	53.1
1881	53.1	53.8	53.7	55.0	56.3	55.1	56.0	57.0	56.7	55.7	55.5	48.8	54.7
1882	49.3	48.8	51.2	51.9	54.3	55.8	55.9	55.8	56.2	56.7	51.4	51.3	53.2
1883	45.0	46.2	52.0	52.9	53.8	57.3	56.1	55.3	58.6	56.7	53.1	49.3	53.0
1884	48.3	47.9	52.3	53.2	54.9	56.6	57.3	55.5	55.2	55.2	55.4	51.5	53.6
1885	49.0	53.2	54.7	56.0	56.2	55.6	57.8	55.9	56.6	56.6	56.2	52.1	55.0
1886	49.1	54.2	51.2	53.2	56.6	56.0	56.5	55.5	56.8	55.0	54.4	51.9	54.2
1887	50.7	46.0	52.2	52.8	54.0	55.8	53.8	54.4	56.8	60.0	54.3	51.2	53.5
1888	45.2	51.5	51.3	54.6	54.3	60.2	58.0	56.2	58.9	59.3	55.5	51.8	54.7
1889	49.3	52.4	55.6	57.2	56.2	57.4	55.5	56.5	59.9	60.1	57.6	50.1	55.6
1890	44.5	47.6	52.3	53.2	56.1	55.5	......	......	......	......	......	......	......
Means	50.8	52.3	53.6	55.0	56.0	56.8	56.7	56.8	58.2	58.9	56.7	52.5	55.3

SAN FRANCISCO (ANGEL ISLAND), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	......	......	......	......	......	......	......	......	......	......	......	55.6	......
1868	47.7	53.8	53.7	58.1	59.8	60.7	61.2	61.2	61.0	61.8	57.6	53.5	57.5
1869	51.6	52.2	57.7	59.4	59.7	60.6	64.1	61.0	64.1	61.9	59.0	50.3	58.5
1870	52.4	53.1	53.5	56.8	60.9	63.2	66.4	67.2	63.1	59.5	58.2	51.2	58.8
1871	52.5	50.2	53.9	55.7	......	......	......	......	......	......	......	......	......
1872	......	......	......	......	......	......	60.9	60.6	62.5	59.5	56.4	50.8	......
1873	54.7	49.7	54.4	56.3	59.4	62.0	58.9	62.0	59.4	60.0	55.3	47.9	56.7
1874	47.7	50.7	50.3	56.8	60.2	62.3	60.1	61.1	62.8	59.3	55.1	48.8	56.3
1875	46.9	50.6	51.5	55.0	59.2	60.0	59.9	60.0	60.5	62.0	56.6	50.6	56.1
1876	47.2	51.8	52.7	55.2	58.4	62.8	61.6	58.8	60.7	59.6	57.6	53.4	56.6
1877	53.3	55.2	56.4	55.8	57.5	63.3	62.2	61.8	63.6	59.4	56.4	51.5	58.0
1878	51.0	51.6	53.8	54.6	58.1	59.1	59.2	59.8	60.4	61.5	56.6	50.8	56.4
1879	47.3	52.5	55.8	57.5	57.9	59.6	59.5	60.3	61.8	60.5	54.3	47.8	56.2
1880	46.5	47.8	49.0	52.8	60.4	60.8	60.0	62.0	62.2	61.6	55.2	51.6	55.8
1881	52.3	54.8	55.1	58.0	60.0	61.6	62.3	62.5	61.5	57.1	55.8	49.7	57.6
1882	49.7	50.9	53.8	54.3	58.5	58.7	61.2	59.0	60.8	58.9	53.2	52.5	56.0
1883	47.2	50.7	56.7	58.0	59.8	64.8	59.2	60.2	63.5	59.0	55.3	52.0	57.2
1884	51.6	51.6	55.2	56.3	60.3	61.4	63.6	60.9	60.5	58.0	57.2	52.2	57.4
1885	50.9	55.0	59.1	59.4	60.1	61.7	61.1	60.1	62.0	60.3	55.7	52.9	58.2
1886	50.6	57.0	53.8	55.4	60.2	63.8	62.4	62.1	62.6	57.9	55.5	53.2	57.9
1887	51.2	47.0	56.5	55.4	59.4	62.1	59.2	56.2	59.9	63.5	56.7	52.9	56.7

Mean monthly and annual temperature at stations in California—Continued.

SAN FRANCISCO (ANGEL ISLAND), CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	46.0	53.8	53.3	58.0	57.6	64.4	63.6	64.0	......	......	......	......	......
1889	55.4	57.0	58.0	59.8	59.9	62.2	61.5	61.4	65.0	61.3	58.5	49.2	59.1
1890	44.1	48.3	52.1	53.0	57.7	59.8	......	......	......	......	......	......	......
Means	49.9	52.1	54.4	56.4	59.3	61.7	61.3	61.1	61.9	60.1	56.3	51.4	57.2

SAN FRANCISCO (FORT MASON), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	......	......	......	......	......	......	......	......	......	......	......	50.2	......
1883	43.2	47.0	55.2	55.8	61.6	65.8	64.9	60.2	63.0	58.2	52.7	47.5	56.3
1884	49.8	50.9	56.4	57.8	60.6	60.3	65.4	59.9	57.4	58.2	56.2	51.8	57.1
1885	53.2	55.6	58.5	59.6	62.8	61.8	60.6	58.9	59.9	58.6	55.5	55.1	58.3
1886	52.6	57.3	56.8	58.7	63.8	62.3	61.8	62.3	61.0	57.0	54.7	53.6	58.5
1887	51.7	47.8	53.9	55.2	57.3	60.3	57.5	57.9	60.0	61.6	56.8	52.0	56.0
1888	47.6	53.4	52.9	59.9	56.3	62.0	61.3	59.3	60.0	59.2	55.4	[51.6]	[56.6]
1889	46.6	52.0	56.1	57.9	58.3	60.1	58.0	58.7	56.8	60.3	52.3	50.7	55.6
1890	45.5	48.4	52.5	53.5	57.9	56.9	......	......	......	......	......	......	......
Means	48.8	51.6	55.3	57.3	59.8	61.2	61.4	59.6	59.7	59.0	54.8	51.6	56.7

SAN FRANCISCO (FORT POINT), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	49.3	51.1	54.0	54.8	56.8	57.9	60.0	57.5	59.4	57.2	54.6	51.4	55.3
1861	49.8	52.4	53.3	55.7	57.3	58.2	57.2	56.7	57.9	57.0	54.5	52.9	55.2
1862	47.4	48.0	52.0	53.1	57.0	60.5	58.2	57.7	57.8	57.8	54.9	51.5	54.7
1863	49.8	49.3	52.8	54.6	57.8	57.3	58.5	58.1	59.4	57.8	53.3	50.7	55.0
1864	51.8	55.7	53.6	56.2	59.7	60.2	58.4	60.2	59.8	59.2	56.4	51.7	56.9
1865	50.9	50.1	51.4	53.5	59.4	58.4	58.9	58.9	59.3	55.9	59.7	47.2	55.3
1866	49.7	53.1	53.5	55.8	54.9	59.2	58.2	57.4	59.0	58.8	56.5	55.8	56.0
1867	52.3	51.0	50.1	55.8	56.7	59.1	61.5	58.2	59.5	57.6	56.9	55.8	56.2
1868	47.1	52.0	53.1	58.3	57.6	58.0	58.1	58.3	58.8	60.2	57.0	54.0	56.0
1869	54.7	51.8	57.1	57.7	58.0	58.3	64.9	59.7	59.9	59.1	57.4	52.0	57.6
1870	53.8	55.6	52.9	55.2	59.1	61.9	64.4	64.6	61.5	61.4	59.6	51.4	58.4
1871	51.8	52.5	55.2	55.2	58.1	59.0	59.6	59.0	60.5	60.3	55.2	52.7	56.6
1872	52.3	54.5	54.3	54.8	58.6	60.1	58.7	58.8	58.4	57.0	55.6	51.7	56.2
1873	54.3	50.7	55.4	56.5	57.6	60.0	60.1	62.3	59.4	60.3	59.5	50.2	57.2
1874	48.5	51.3	51.3	55.1	59.2	58.0	57.0	58.5	59.8	58.8	57.0	51.4	55.5
Means	50.9	51.9	53.3	55.5	57.8	59.1	59.6	59.1	59.4	58.6	56.5	52.0	56.1

SAN FRANCISCO (PRESIDIO), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1847	......	......	......	......	......	......	......	......	......	57.6	50.2	50.8	......
1848	49.3	50.5	51.0	......	......	......	......	......	......	......	......	......	......
1850	......	......	49.8	54.4	55.2	57.2	......	......	......	......	......	48.7	......
1851	49.3	51.0	53.8	57.7	56.0	58.8	57.9	62.2	61.6	61.9	56.2	51.3	[56.5]
1852	50.8	......	......	......	......	......	59.9	58.1	58.5	55.5	54.6	50.1	......
1853	51.0	49.9	53.1	54.9	56.4	57.6	56.6	56.9	59.0	59.7	55.9	51.3	55.2
1854	47.9	51.7	52.0	56.1	53.6	55.3	57.2	56.6	57.3	59.0	56.4	52.6	54.6
1855	50.1	55.0	56.6	56.0	56.0	56.4	58.8	62.0	61.6	60.2	54.2	48.6	56.3
1856	56.7	53.7	54.3	55.8	54.0	56.9	56.3	56.2	58.6	56.7	52.1	46.8	54.8
1857	50.6	50.2	53.0	56.2	55.5	58.8	57.7	57.6	60.0	58.9	53.9	49.7	55.2
1858	47.7	52.8	52.1	53.1	55.0	56.8	56.7	58.5	59.5	57.5	54.6	46.1	54.2
1859	46.4	49.1	49.7	51.9	55.1	58.0	55.8	57.0	58.3	57.4	53.5	48.7	53.4
1860	47.6	50.8	53.0	54.4	54.3	56.3	57.6	56.0	59.8	56.7	54.2	49.9	54.2
1861	48.9	51.0	52.9	55.5	55.1	55.9	52.3	55.0	57.1	57.9	54.6	50.4	53.9
1862	......	......	......	......	......	......	......	......	......	58.5	55.0	50.9	......
1863	49.8	48.3	53.9	54.5	58.6	58.9	59.3	55.8	60.8	58.6	54.6	49.2	55.2
1864	51.0	52.7	51.7	53.8	56.2	55.8	56.1	58.6	58.4	57.8	54.6	51.8	54.9
1865	49.9	49.9	49.8	51.4	56.9	55.7	56.8	57.7	59.0	55.7	56.7	46.3	53.8
1866	48.9	51.7	51.8	54.7	53.4	57.6	58.1	58.4	58.7	56.6	53.8	54.8	54.9
1867	49.9	49.1	52.4	54.3	54.9	57.1	60.9	57.3	58.8	56.7	56.0	54.4	55.2
1868	46.3	50.6	51.3	53.2	54.8	55.4	56.1	56.3	56.7	58.5	55.3	52.6	53.9
1869	50.8	50.5	55.3	55.6	55.4	57.2	59.9	57.2	59.7	57.4	56.0	53.0	55.7
1870	51.2	51.5	49.7	52.3	55.9	56.2	61.0	61.6	60.0	60.1	56.2	48.3	55.3

Mean monthly and annual temperature at stations in California—Continued.

SAN FRANCISCO (PRESIDIO), CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	49.3	49.0	52.4	52.6	54.0	55.4	55.7	56.4	59.5	61.4	54.3	52.3	54.4
1872	51.8	54.0	53.3	52.5	54.5	58.2	57.2	58.3	58.4	57.2	54.4	51.1	55.0
1873	53.4	49.7	53.4	53.0	53.9	55.6	56.5	58.7	57.0	58.8	56.9	49.7	54.7
1874	48.1	49.5	49.6	54.0	56.9	58.0	56.3	57.8	59.5	58.8	55.2	48.7	54.4
1875	48.0	50.1	51.3	53.4	56.0	57.6	57.0	57.2	57.3	59.3	55.3	50.4	54.4
1876	47.1	51.0	51.4	53.4	55.0	59.4	57.6	57.7	59.7	57.6	55.1	51.0	54.7
1877	51.5	53.4	54.2	52.7	54.7	60.4	58.6	57.6	59.8	57.0	55.6	50.9	55.5
1878	51.4	51.4	53.7	53.3	55.0	56.3	56.0	56.7	57.5	58.4	54.7	49.3	54.5
1879	47.3	51.8	54.7	54.7	55.8	58.1	57.7	59.4	59.7	60.1	53.4	48.2	55.1
1880	46.1	47.0	58.1	52.4	57.1	55.1	56.5	57.5	57.0	57.3	51.7	51.5	53.1
1881	51.8	53.6	52.2	56.0	55.7	56.7	57.8	57.4	57.0	54.8	52.8	49.8	54.6
1882	48.0	46.9	50.8	51.4	56.1	57.1	60.3	57.4	57.4	56.3	51.2	51.4	53.7
1883	45.7	47.7	52.2	52.4	56.0	59.0	58.2	57.3	60.7	57.1	52.4	49.0	54.0
1884	48.2	48.5	52.9	54.2	57.8	58.7	58.8	57.7	57.3	55.2	55.4	51.7	54.7
1885	49.7	53.5	55.1	56.3	56.6	56.6	59.5	57.5	58.5	57.8	56.3	52.9	55.9
1886	49.4	54.5	51.7	53.9	57.2	57.0	58.2	58.0	59.4	55.4	54.3	52.4	55.1
1887	51.2	45.3	52.7	53.7	55.6	58.2	56.5	56.8	60.3	59.6	54.3	50.8	54.6
1888	45.7	51.7	51.2	55.3	55.1	60.8	59.5	[57.7]	[58.9]	59.8	55.3	54.2	[55.4]
1889	50.2	50.4	55.4	56.2	55.7	56.8	55.8	56.8	60.0	58.9	57.0	50.7	55.3
1890	46.3	47.7	51.4	52.0	56.8	55.5							
Means	49.4	50.7	52.4	54.1	55.6	57.2	57.6	57.7	58.9	58.0	54.6	50.5	54.8

SAN FRANCISCO (SAN JOSÉ POINT), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1865										55.2	58.1	48.3	
1866	50.0	55.1	55.3	58.8	56.0				60.0	61.7	51.9	53.3	
1869	53.2												
1870								62.4	61.6	60.2	56.1	50.9	
1871	49.0	48.4	51.9	55.4	54.0	54.2	60.1	52.5	55.3	54.4	47.7	51.3	52.8
1872	48.7	49.5	53.0	58.8	54.2	58.8	56.1	61.2	59.8	59.3	57.4	52.2	55.8
1873	49.2	49.7	53.0	54.8	62.3	61.1	60.4	60.3	57.4	58.1	55.6	48.5	55.8
1874	47.2	49.3	49.8	54.7	57.9	58.8	57.2	58.4	59.8	58.6	55.7	47.8	54.6
1875	47.7	50.6	50.7	53.6	57.3	58.4	57.4	57.0	57.8	60.1	55.6	49.8	54.7
1876	46.9	50.9	52.1	55.3	56.9	61.4	58.1	58.4	60.2	58.0	56.3	51.4	55.5
1877	52.5	54.3	55.6										
1878					57.5	57.9	57.2	57.6	58.0	59.4	55.4	50.3	
1879	47.5	52.5	55.3	55.3	56.0	58.7	57.3	58.5	59.4	59.0	53.1	47.9	55.0
1880	45.9	46.9	47.8	52.1	57.6	56.2	57.4	58.2	57.3	57.7	52.8	51.5	53.4
1881	52.1	53.2	52.5	56.5	56.7	57.9	58.7	57.8	58.9	54.7	52.6	48.4	55.0
1882	47.7	46.3	50.8	52.0	57.0	58.3	58.6	59.7	60.7	59.6	52.5	[50.1]	[54.4]
Means	49.0	50.6	52.3	55.2	57.0	58.3	58.0	58.5	58.9	58.3	54.6	50.1	55.0

SAN FRANCISCO (YERBA BUENA ISLAND), CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	52.0	51.0	56.6	57.4	56.9	58.4	60.8	58.7	61.6	59.6	57.6	50.6	56.8
1870	51.9	53.3	51.3	54.3	57.6	58.3	62.8	62.9	60.7	62.4	57.4	50.3	56.9
1871	49.2								61.8	61.4	55.4	52.2	
1872	52.2	53.9	54.8	55.5	57.6	59.4	59.8	61.5	60.9	60.2	56.0	52.1	57.0
1873	54.2	50.8	54.3	56.3	58.3	60.9	60.4	60.4	60.0	59.8			
Means	51.9	52.2	54.2	55.9	57.6	59.2	61.0	60.9	61.0	60.7	56.6	51.3	56.9

SAN GABRIEL, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881				61.9	61.7								
1889	52.6	54.2	62.6	66.6	67.2	71.1	75.7	76.7	74.3	69.4	61.1	55.3	65.6
1890	46.5	51.8	58.2	62.5	68.3	76.5							
Means	49.6	53.0	60.4	63.7	65.7	73.8	75.7	76.7	74.3	69.4	61.1	55.3	64.9

Mean monthly and annual temperature at stations in California—Continued.

SANGER JUNCTION, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	89.2	84.1	72.5	59.6	51.2	......
1889	45.2	51.1	61.7	68.0	75.8	86.4	89.4	86.3	78.4	66.3	56.4	47.1	67.7
1890	46.5	50.0	57.3	66.8	75.8	81.2	......	......	......	......	......	......	......
Means	45.8	50.6	59.5	67.4	75.8	83.8	89.4	87.8	81.2	69.4	58.0	49.2	68.2

SAN GORGONIO PASS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	......	53.7	47.5	42.2	......
1875	40.3	43.0	44.2	54.4	59.5	61.7	68.6	68.3	63.8	61.6	45.2	43.8	54.5
1876	35.2	40.2	41.2	50.6	57.1	67.5	68.8	65.3	62.2	54.3	45.5	44.2	52.7
1877	42.7	45.5	50.7	45.5	49.8	62.5	69.8	68.9	64.0	51.9	46.1	38.9	53.0
1878	[39.9]	40.2	[46.1]	47.8	54.8	62.9	66.8	70.1	63.7	58.3	49.3	42.2	[53.5]
1879	40.4	48.9	52.4	50.7	55.0	63.9	69.2	72.8	68.9	55.5	47.8	42.3	55.6
1880	42.3	38.0	40.2	47.3	57.5	63.5	66.7	66.6	64.6	57.0	[46.9]	44.0	[52.9]
1881	41.5	46.3	49.7	......	57.4	60.8	69.2	66.2	64.0	......	......	45.8	......
1882	37.1	37.2	44.4	47.9	56.0	59.5	68.6	70.5	......	......	......	......	......
1887	......	......	......	......	......	......	......	......	......	......	......	51.3	......
Means	39.9	42.4	46.1	49.2	55.9	62.8	68.5	68.6	64.5	56.0	46.9	43.9	53.7

SAN JOAQUIN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864	49.3	57.4	56.6	65.5	74.9	88.5	......	82.9	78.1	67.1	56.6	49.7	......

SAN JOSÉ, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	......	......	......	47.4	......
1874	46.8	49.3	51.8	58.8	67.7	76.1	71.1	68.7	71.0	64.3	56.8	57.9	61.7
1875	49.8	53.3	54.4	62.1	66.6	68.5	68.8	70.1	64.7	65.5	[53.5]	53.1	[60.9]
1876	42.2	49.6	57.8	57.9	59.2	69.6	65.2	66.1	65.2	64.0	55.5	47.6	58.3
1877	50.6	51.4	55.8	55.1	57.2	68.0	67.4	64.9	63.9	58.2	54.1	51.9	58.2
1878	53.6	52.1	54.1	54.8	50.1	64.8	64.8	65.7	62.2	56.4	52.8	46.1	56.5
1879	46.9	52.8	55.9	56.5	57.8	66.1	66.3	67.1	64.0	59.5	52.4	46.5	57.6
1880	45.0	45.7	49.0	52.9	59.0	62.1	64.7	65.7	62.1	58.9	48.5	52.6	55.5
1881	57.7	53.2	54.5	60.0	62.3	60.5	66.3	64.3	62.2	56.8	49.7	47.1	57.9
1882	40.4	45.3	52.1	51.9	58.9	61.9	65.6	65.6	65.4	56.6	52.0	47.3	55.2
1883	43.7	46.1	53.0	53.7	59.8	68.8	66.8	66.3	67.1	57.5	50.8	47.3	56.7
1884	48.0	48.6	52.6	55.2	60.2	61.6	65.4	65.6	62.0	56.3	54.5	51.7	56.8
1885	49.4	51.9	55.8	55.6	[60.2]	61.3	65.8	65.4	64.6	61.6	56.3	[50.2]	[58.2]
1886	49.1	53.3	51.0	54.7	60.5	63.9	66.3	66.7	63.7	57.3	52.3	52.4	57.6
1887	50.3	48.2	54.8	54.3	58.6	63.9	64.8	63.3	64.7	62.5	54.6	50.5	57.5
1888	46.4	52.6	52.8	58.3	59.8	65.2	66.8	68.6	68.0	62.3	56.5	52.9	59.2
1889	47.6	50.9	56.7	59.7	61.9	66.2	66.1	67.2	67.7	61.5	56.3	50.5	59.4
1890	45.0	48.7	53.9	56.7	63.5	63.6	......	......	......	......	......	......	......
Means	47.8	50.2	53.9	56.4	60.2	65.4	66.4	66.3	64.9	60.0	53.5	50.2	57.9

SAN LUIS OBISPO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	58.3	62.5	62.6	63.2	62.2	56.8	55.7	......
1886	53.0	56.6	50.4	......	......	......	......	......	......	......	......	......	......
1887	......	......	......	......	......	......	......	......	60.5	62.9	56.0	52.4	......
1888	46.3	51.9	51.7	57.2	57.0	62.0	62.6	63.1	62.3	62.0	56.6	55.8	57.4
1889	51.9	55.2	58.0	60.0	59.9	64.2	64.4	......	......	......	......	......	......
Means	50.4	54.6	53.4	58.6	58.4	61.5	63.2	62.8	62.0	62.4	56.5	54.6	58.2

SAN LUIS REY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1850	......	......	......	......	......	......	70.6	73.7	73.5	65.5	58.5	50.6	......
1851	52.0	50.7	54.3	......	......	......	......	......	......	......	......	......	......
1876	45.0	50.3	49.0	54.2	59.1	64.9	67.5	[70.2]	[68.3]	60.1	52.1	49.1	[57.5]

Mean monthly and annual temperature at stations in California—Continued.

SAN LUIS REY, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	50.6	51.7	55.0	53.7	57.9	66.5	70.8	6[illegible].6	66.9	58.1	54.5	49.3	58.6
1878	48.3	50.7	52.0	54.3	59.6	62.5	65.9	68.3	64.5	......	......	......	....
Means	49.0	50.8	52.6	54.1	58.9	64.6	68.7	70.2	68.3	61.2	55.0	49.7	58.6

SAN MATEO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	......	......	......	48.0	....
1874	48.4	48.4	51.0	59.3	62.8	67.7	64.3	67.0	63.2	57.6	53.1	46.8	57.5
1875	47.0	48.4	53.2	57.1	61.8	61.2	59.7	58.2	57.4	57.3	55.3	50.0	55.6
1876	46.0	68.7	52.7	55.8	60.0	66.6	60.3	61.6	60.6	57.5	54.6	47.6	57.7
1877	48.7	53.6	55.5	55.5	56.4	66.4	63.8	61.2	62.8	58.0	52.6	50.0	57.0
1878	50.9	50.5	53.0	56.0	60.8	64.5	66.4	66.3	65.4	63.4	57.1	49.0	58.6
1879	48.3	53.9	58.2	60.8	60.8	68.6	65.6	68.0	64.1	61.1	51.8	46.0	58.9
1880	43.1	40.5	49.9	55.1	63.1	65.9	67.2	64.5	65.0	59.6	49.3	50.8	56.2
1881	50.8	51.7	50.8	56.5	59.2	60.5	62.0	60.0	58.8	51.6	46.5	45.6	54.5
1882	43.6	42.5	47.7	49.1	56.5	58.5	60.2	62.8	60.7	56.6	49.4	48.5	53.0
1883	43.2	44.9	52.3	52.9	57.6	64.5	62.1	60.9	64.3	54.9	49.1	46.1	54.4
1884	44.8	45.8	50.2	53.0	59.2	60.8	64.3	60.2	59.8	54.1	52.5	48.9	54.5
1885	47.6	51.0	53.5	56.6	60.2	61.2	68.1	65.2	66.4	61.3	57.9	[48.8]	[58.2]
1886	50.3	54.7	53.8	57.8	64.0	66.6	68.4	67.5	65.1	59.2	54.0	54.1	59.6
1887	50.3	47.0	55.1	57.2	60.6	64.9	63.6	63.6	64.3	64.4	51.2	50.1	57.7
1888	46.5	51.2	51.7	58.3	58.2	67.1	69.7	66.7	62.8	58.1	49.3	50.6	57.5
1889	45.5	49.1	54.4	58.6	59.7	63.9	60.6	72.0	64.8	57.4	54.9	49.3	57.5
1890	44.1	44.7	49.1	53.6	60.7	59.3	......	......	......	......	......	......	....
Means	47.0	49.8	52.5	56.1	60.1	64.0	64.1	64.1	62.8	58.3	52.4	48.8	56.7

SAN MIGUEL, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	56.6	46.8	46.9	....
1887	48.0	46.3	57.4	56.8	64.5	69.9	73.7	69.9	68.5	67.0	59.3	49.5	60.9
1888	43.2	52.5	54.5	61.2	62.2	69.5	69.9	73.2	70.7	62.5	54.4	50.9	60.4
1889	45.6	49.6	55.4	59.6	63.6	68.5	72.9	73.5	70.4	61.7	52.2	52.3	60.4
1890	45.4	46.7	53.8	57.9	63.7	66.1	......	......	......	......	......	......	....
Means	45.6	48.8	55.3	58.9	63.5	68.5	72.2	72.2	69.9	62.0	53.2	49.9	60.0

SAN PEDRO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	77.3	75.0	69.2	62.1	59.1	....
1889	53.5	57.5	63.7	65.8	66.7	70.6	74.6	74.6	75.6	68.4	......	57.1	....
1890	50.1	54.9	57.8	61.2	64.7	68.2	......	......	......	......	......	......	....
Means	51.8	56.2	60.8	63.5	65.7	69.4	74.6	76.0	75.3	68.8	62.1	58.1	65.2

SANTA ANA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	55.7	58.5	61.3	66.3	67.7	72.1	73.7	73.7	73.8	66.7	59.5	57.2	65.5
1890	48.5	55.3	57.2	63.1	67.0	70.7	......	......	......	......	......	......	....
Means	52.1	56.9	59.2	64.7	67.4	71.4	73.7	73.7	73.8	66.7	59.5	57.2	64.7

SANTA BARBARA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864	......	......	54.1	63.2	64.4	68.0	67.6	71.1	68.0	......	......	......	....
1876	......	......	......	59.6	63.3	65.9	69.0	67.1	67.6	66.2	59.6	55.2	....
1877	55.0	......	......	......	......	......	......	......	......	......	......	......	....
1880	......	......	......	......	......	......	......	......	......	59.4	56.1	53.9	....
1881	50.8	54.7	53.1	59.2	[62.0]	64.4	66.2	65.2	60.3	58.7	53.4	51.7	[58.3]

Mean monthly and annual temperature at stations in California—Continued.

SANGER JUNCTION, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	89.2	84.1	72.5	59.6	51.2	......
1889	45.2	51.1	61.7	68.0	75.8	86.4	89.4	86.3	78.4	66.3	56.4	47.1	67.7
1890	46.5	50.0	57.3	66.8	75.8	81.2	......	......	......	......	......	......	......
Means	45.8	50.6	59.5	67.4	75.8	83.8	89.4	87.8	81.2	69.4	58.0	49.2	68.2

SAN GORGONIO PASS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	......	53.7	47.5	42.2	......
1875	40.3	43.0	44.2	54.4	59.5	61.7	68.6	68.3	63.8	61.6	45.2	43.8	54.5
1876	35.2	40.2	41.2	50.6	57.1	67.5	68.8	65.3	62.2	54.3	45.5	44.2	52.7
1877	42.7	45.5	50.7	45.5	49.8	62.5	69.8	68.9	64.0	51.9	46.1	38.9	53.0
1878	[39.9]	40.2	[46.1]	47.8	54.8	62.9	66.8	70.1	63.7	58.3	49.3	42.2	[53.5]
1879	40.4	48.9	52.4	50.7	55.0	63.9	69.2	72.8	68.9	55.5	47.8	42.3	55.6
1880	42.3	38.0	40.2	47.3	57.5	63.5	66.7	66.6	64.6	57.0	[46.9]	44.0	[52.9]
1881	41.5	46.3	49.7	......	57.4	60.8	69.2	66.2	64.0	......	......	45.8	......
1882	37.1	37.2	44.4	47.9	56.0	59.5	68.6	70.5	......	......	......	......	......
1887	......	......	......	......	......	......	......	......	......	......	......	51.3	......
Means	39.9	42.4	46.1	49.2	55.9	62.8	68.5	68.6	64.5	56.0	46.9	43.9	53.7

SAN JOAQUIN, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864	49.3	57.4	56.6	65.5	74.9	88.5	......	82.9	78.1	67.1	56.6	49.7	......

SAN JOSÉ, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	......	......	......	47.4	......
1874	46.8	49.3	51.8	58.8	67.7	76.1	71.1	68.7	71.0	64.3	56.8	57.9	61.7
1875	49.8	53.3	54.4	62.1	66.6	68.5	68.8	70.1	64.7	65.5	[53.5]	53.1	[60.9]
1876	42.2	49.6	57.8	57.9	59.2	69.6	65.2	66.1	65.2	64.0	55.5	47.6	58.3
1877	50.6	51.4	55.8	55.1	57.2	68.0	67.4	64.9	63.9	58.2	54.1	51.9	58.2
1878	53.6	52.1	54.1	54.8	50.1	64.8	64.8	65.7	62.2	56.4	52.8	46.1	56.5
1879	46.9	52.8	55.9	56.5	57.8	66.1	66.3	67.1	64.0	59.5	52.4	46.5	57.6
1880	45.0	45.7	49.0	52.9	59.0	62.1	64.7	65.7	62.1	58.9	48.5	52.6	55.5
1881	57.7	53.2	54.5	60.0	62.3	60.5	66.3	64.3	62.2	56.8	49.7	47.1	57.9
1882	40.4	45.3	52.1	51.9	58.9	61.9	65.6	65.6	65.4	56.6	52.0	47.3	55.2
1883	43.7	46.1	53.0	53.7	59.8	68.8	66.8	66.3	67.1	57.5	50.8	47.3	56.7
1884	48.0	48.6	52.6	55.2	60.2	61.6	65.4	65.6	62.0	56.3	54.5	51.7	56.8
1885	49.4	51.9	55.8	55.6	[60.2]	61.3	65.8	65.4	64.6	61.6	56.3	[50.2]	[58.2]
1886	49.1	53.3	51.0	54.7	60.5	63.9	66.3	66.7	63.7	57.3	52.3	52.4	57.6
1887	50.3	48.2	54.8	54.3	58.6	63.9	64.8	63.3	64.7	62.5	54.6	50.5	57.5
1888	46.4	52.6	52.8	58.3	59.8	65.2	66.8	68.6	68.0	62.3	56.5	52.9	59.2
1889	47.6	50.9	56.7	59.7	61.9	66.2	66.1	67.2	67.7	61.5	56.3	50.5	59.4
1890	45.0	48.7	53.9	56.7	63.5	63.6	......	......	......	......	......	......	......
Means	47.8	50.2	53.9	56.4	60.2	65.4	66.4	66.3	64.9	60.0	53.5	50.2	57.9

SAN LUIS OBISPO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	58.3	62.5	62.6	63.2	62.2	56.8	55.7	......
1886	53.0	56.6	50.4	......	......	......	......	......	......	......	......	......	......
1887	......	......	......	......	......	......	......	......	60.5	62.9	56.0	52.4	......
1888	46.3	51.9	51.7	57.2	57.0	62.0	62.6	63.1	62.3	62.0	56.6	55.8	57.4
1889	51.9	55.2	58.0	60.0	59.9	64.2	64.4	......	......	......	......	......	......
Means	50.4	54.6	53.4	58.6	58.4	61.5	63.2	62.8	62.0	62.4	56.5	54.6	58.2

SAN LUIS REY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1850	......	......	......	......	......	......	70.6	73.7	73.5	65.5	58.5	50.6	......
1851	52.0	50.7	54.3	......	......	......	......	......	......	......	......	......	......
1876	45.0	50.3	49.0	54.2	59.1	64.9	67.5	[70.2]	[68.3]	60.1	52.1	49.1	[57.5]

Mean monthly and annual temperature at stations in California—Continued.

SAN LUIS REY, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	50.6	51.7	55.0	53.7	57.9	66.5	70.8	69.6	66.9	58.1	54.5	49.3	58.6
1878	48.3	50.7	52.0	54.3	59.6	62.5	65.9	68.3	64.5	......	......	......	....
Means	49.0	50.8	52.6	54.1	58.9	64.6	68.7	70.2	68.3	61.2	55.0	49.7	58.6

SAN MATEO, CAL.

1873	......	......	......	......	......	......	......	......	......	......	......	48.0	....
1874	48.4	48.4	51.0	59.3	62.8	67.7	64.3	67.0	63.2	57.6	53.1	46.8	57.5
1875	47.0	48.4	53.2	57.1	61.8	61.2	59.7	58.2	57.4	57.3	55.3	50.0	55.6
1876	46.0	68.7	52.7	55.8	60.0	66.6	60.3	61.6	60.6	57.5	54.6	47.6	57.7
1877	48.7	53.6	55.5	55.5	56.4	66.4	63.8	61.2	62.8	58.0	52.6	50.0	57.0
1878	50.9	50.5	53.0	56.0	60.8	64.5	66.4	66.3	65.4	63.4	57.1	49.0	58.6
1879	48.3	53.9	58.2	60.8	60.8	68.6	65.6	68.0	64.1	61.1	51.8	46.0	58.9
1880	43.1	40.5	49.9	55.1	63.1	65.9	67.2	64.5	65.0	59.6	49.3	50.8	56.2
1881	50.8	51.7	50.8	56.5	59.2	60.5	62.0	60.0	58.8	51.6	46.5	45.6	54.5
1882	43.6	42.5	47.7	49.1	56.5	58.5	60.2	62.8	60.7	56.6	49.4	48.5	53.0
1883	43.2	44.9	52.3	52.9	57.6	61.5	62.1	60.9	64.3	54.9	49.1	46.1	54.4
1884	44.8	45.8	50.2	53.0	59.2	60.8	64.3	60.2	59.8	54.1	52.5	48.9	54.5
1885	47.6	51.0	53.5	56.6	60.2	61.2	68.1	65.2	66.4	61.3	57.9	[48.8]	[58.2]
1886	50.3	54.7	53.8	57.8	64.0	66.6	68.4	67.5	65.1	59.2	54.0	54.1	59.6
1887	50.3	47.0	55.1	57.2	60.6	64.9	63.6	63.6	64.3	64.4	51.2	50.1	57.7
1888	46.5	51.2	51.7	58.3	58.2	67.1	69.7	66.7	62.8	58.1	49.3	50.6	57.5
1889	45.5	49.1	54.4	58.6	59.7	63.9	60.6	72.0	64.8	57.4	54.9	49.3	57.5
1890	44.1	44.7	49.1	53.6	60.7	59.3	......	......	......	......	......	......	....
Means	47.0	49.8	52.5	56.1	60.1	64.0	64.1	64.1	62.8	58.3	52.4	48.8	56.7

SAN MIGUEL, CAL.

1886	......	......	......	......	......	......	......	......	......	56.6	46.8	46.9	....
1887	48.0	46.3	57.4	56.8	64.5	69.9	73.7	69.9	68.5	67.0	59.3	49.5	60.9
1888	43.2	52.5	54.5	61.2	62.2	69.5	69.9	73.2	70.7	62.5	54.4	50.9	60.4
1889	45.6	49.6	55.4	59.6	63.6	68.5	72.9	73.5	70.4	61.7	52.2	52.3	60.4
1890	45.4	46.7	53.8	57.9	63.7	66.1	......	......	......	......	......	......	....
Means	45.6	48.8	55.3	58.9	63.5	68.5	72.2	72.2	69.9	62.0	53.2	49.9	60.0

SAN PEDRO, CAL.

1888	......	......	......	......	......	......	......	77.3	75.0	69.2	62.1	59.1	....
1889	53.5	57.5	63.7	65.8	66.7	70.6	74.6	74.6	75.6	68.4	......	57.1	....
1890	50.1	54.9	57.8	61.2	64.7	68.2	......	......	......	......	......	......	....
Means	51.8	56.2	60.8	63.5	65.7	69.4	74.6	76.0	75.3	68.8	62.1	58.1	65.2

SANTA ANA, CAL.

1889	55.7	58.5	61.3	66.3	67.7	72.1	73.7	73.7	73.8	66.7	59.5	57.2	65.5
1890	48.5	55.3	57.2	63.1	67.0	70.7	......	......	......	......	......	......	....
Means	52.1	56.9	59.2	64.7	67.4	71.4	73.7	73.7	73.8	66.7	59.5	57.2	64.7

SANTA BARBARA, CAL.

1864	......	......	54.1	63.2	64.4	68.0	67.6	71.1	68.0	......	......	......	....
1876	......	......	......	59.6	63.3	65.9	69.0	67.1	67.6	66.2	59.6	55.2	....
1877	55.0	......	......	......	......	......	......	......	......	......	......	......	....
1880	......	......	......	......	......	......	......	......	......	59.4	56.1	53.9	....
1881	50.8	54.7	53.1	59.2	[62.0]	64.4	66.2	65.2	60.3	58.7	53.4	51.7	[58.3]

Mean monthly and annual temperature at stations in California—Continued.

SANTA BARBARA, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	......	47.4	......	......	......	......	......	......	......	......	......	......	......
1883	......	......	......	......	......	......	......	......	66.7	58.7	53.8	......	......
1885	53.2	56.7	59.1	60.7	60.0	62.4	61.1	68.0	66.9	63.0	58.9	57.2	60.6
1886	55.0	59.6	53.1	55.7	60.5	62.0	66.3	68.2	63.8	[62.3]	[57.4]	55.8	[60.0]
1887	54.7	50.4	57.0	58.4	60.1	63.7	64.6	64.8	66.0	65.0	58.9	[54.8]	[59.9]
1888	49.0	53.8	53.0	59.9	62.8	64.4	67.0	66.3	67.9	63.5	59.1	55.8	60.2
1889	53.0	55.4	59.0	59.9	60.0	62.5	62.2	67.3	68.8	63.9	59.6	54.2	60.5
1890	48.4	52.6	55.6	65.0	65.1	......	......	......	......	......	......	......	......
Means	52.4	53.8	55.5	60.2	62.0	64.2	65.5	67.2	66.2	62.3	57.4	54.8	60.1

SANTA CLARA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1859	......	......	......	......	......	......	......	......	63.3	61.7	58.3	46.3	......
1861	48.8	[52.3]	[55.8]	......	......	......	......	......	......	......	......	......	......
1885	......	......	......	......	......	......	......	......	......	67.5	53.0	......	......
1886	......	......	......	......	......	......	......	......	......	......	......	54.5	......
1887	[47.8]	48.2	57.6	58.2	61.8	63.4	62.5	62.0	63.7	61.4	54.0	52.0	[57.7]
1888	47.8	54.6	52.3	57.9	57.8	64.1	65.2	67.2	68.7	62.1	56.6	53.3	59.0
1889	49.1	52.8	57.5	59.8	61.9	66.3	64.6	66.3	66.9	61.4	56.4	50.8	59.5
1890	45.6	49.4	......	56.0	61.4	60.8	......	......	......	......	......	......	......
Means	47.8	51.5	55.8	58.0	60.7	63.6	64.1	65.2	65.6	62.8	54.7	51.4	58.4

SANTA CRUZ, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	56.0	51.9	57.0	58.9	62.4	64.7	63.2	66.0	61.3	58.4	55.3	[53.2]	[59.0]
1874	[51.6]	54.0	55.2	62.0	64.7	66.1	66.6	66.8	65.4	57.1	62.8	50.9	[60.3]
1875	50.0	54.4	49.5	60.4	65.2	64.4	......	68.7	......	......	58.5	55.7	......
1876	54.4	54.9	52.2	58.6	59.2	60.2	61.8	63.0	61.3	59.4	52.8	55.2	57.8
1877	56.4	57.6	60.6	61.7	......	......	......	......	......	......	......	......	......
1878	54.6	55.2	56.1	59.5	61.4	63.8	61.4	59.8	61.1	59.0	53.6	48.5	57.8
1879	46.7	54.9	57.4	57.9	58.8	62.5	64.5	65.5	64.5	60.4	53.2	48.2	57.9
1880	46.3	47.8	49.9	55.4	60.0	62.7	62.7	63.5	61.7	61.3	54.1	54.3	56.6
1881	54.1	57.9	58.2	62.9	63.9	62.9	64.5	66.8	60.8	57.4	54.9	52.1	59.7
1882	48.7	47.0	53.2	55.6	51.4	62.3	64.0	63.7	62.2	60.0	54.1	53.6	56.3
1883	49.1	49.7	56.4	56.8	59.5	65.4	64.7	64.2	65.5	58.7	54.9	54.1	58.2
1884	52.5	53.5	55.7	57.7	62.6	63.9	65.1	66.1	62.6	60.1	56.3	52.7	59.1
1885	52.7	54.5	58.6	60.6	62.4	64.5	66.6	65.6	64.7	62.5	58.4	[53.2]	[60.4]
1886	53.6	57.8	53.7	57.8	62.4	66.4	66.6	65.0	59.7	56.7	55.7	54.9	59.2
1887	52.2	49.3	58.2	57.7	59.7	63.9	61.9	62.3	65.1	64.4	55.7	53.0	58.6
1888	49.2	53.1	54.8	59.3	59.3	67.5	66.4	64.4	65.8	66.3	58.0	57.1	60.1
1889	50.9	52.9	56.3	59.7	59.3	63.6	67.1	65.2	67.5	61.9	[55.9]	55.0	[59.4]
1890	49.6	52.0	54.5	58.1	62.6	61.9	......	......	......	......	......	......	......
Means	51.6	53.2	55.4	58.9	60.9	63.9	64.5	64.8	63.3	60.2	55.9	53.2	58.8

SANTA MARGARITA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	51.8	54.6	62.5	64.2	71.9	76.9	72.3	71.8	60.4	50.1	47.9	......
1890	38.8	38.6	51.7	56.2	64.7	63.1	......	......	......	......	......	......	......
Means	38.8	45.2	53.2	59.4	64.4	67.5	76.9	72.3	71.8	60.4	50.1	47.9	59.0

SANTA MARIA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	......	......	56.0	61.0	......
1887	54.0	47.0	58.2	57.0	61.0	62.0	63.5	62.5	63.0	65.0	57.5	51.0	58.5
1888	46.0	53.0	55.0	61.0	61.6	65.7	66.0	65.0	65.0	61.0	56.6	54.0	59.2
1889	48.7	51.8	[56.0]	61.8	60.0	67.0	64.9	65.6	66.8	63.3	58.3	52.2	[59.7]
1890	45.6	51.4	54.7	57.0	61.7	......	......	......	......	......	......	......	......
Means	48.6	50.8	56.0	59.2	61.1	64.9	64.8	64.4	64.9	63.1	57.1	54.6	59.1

Mean monthly and annual temperature at stations in California—Continued.

SANTA MONICA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885			62.9	65.8	66.4	67.0	70.0	70.1	67.7	64.6	61.0	57.2	
1886	56.9	62.3	68.7	64.2	69.1	72.6	74.1	73.1	69.5	66.3	61.3	59.4	66.5
1887	50.6	48.7	53.2	55.1	62.1	65.1	66.9	65.8	63.3	67.1	63.9	59.3	60.1
1888	56.8	58.0	57.2	65.3	64.0	68.0	76.7	74.6	72.6	67.8	60.5	55.8	64.8
1889	50.7	52.5	58.0	63.1	65.8	68.9	70.8	70.0	72.8	67.6	60.5	55.0	63.0
1890	53.2	54.2	60.3	61.3	67.0	69.7							
Means	53.6	55.1	60.0	62.5	65.7	68.6	71.7	70.7	69.2	66.7	61.4	57.3	63.5

SANTA PAULA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888								68.3	70.5	67.3	62.6	59.8	
1889	56.2	57.7	62.0	66.8	68.4	68.4	72.9	71.8	73.2	67.2	63.0	57.3	65.4
1890	49.2	55.6	61.2		68.1	73.9							
Means	52.7	56.6	61.6	66.8	68.2	71.2	72.9	70.0	71.8	67.2	62.8	58.6	65.0

SANTA ROSA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873											53.5	47.0	
1874	45.7	48.0	48.0	55.4									
1885						65.5	70.8	62.7					
1887										64.2			
1888								71.7	67.4	62.1	53.9	51.5	
1889	46.8	48.6	51.8	58.5	62.6	65.4	65.2	64.7	65.3	60.3	55.8	50.0	57.9
1890	43.3	46.9	49.6	54.7	60.6	65.0							
Means	45.3	47.8	49.8	56.2	61.6	65.3	68.0	66.4	66.4	62.2	54.4	49.5	57.7

SELMA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	46.4	54.0	54.3	61.7	73.5	83.7	85.9	83.3	75.2	62.6	49.5	47.8	64.8
1887	45.2	47.1	60.0	66.3	73.0	79.4	84.9	81.8	75.7	68.6	57.3	45.1	65.4
1888	43.6	50.4	51.7	63.1	70.7	77.2	85.8	87.7	83.4	62.1	57.0	48.0	65.1
1889	42.7	49.0	56.9	63.9	73.1	[78.3]	85.7	83.6	80.0	66.0	53.9	49.8	[65.2]
1890	42.5	48.2	54.6	65.2	71.8	72.9							
Means	44.1	49.7	55.5	64.0	72.4	78.3	85.6	84.1	78.6	64.8	54.4	47.7	64.9

SEVEN PALMS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	55.6	60.1	67.1	79.6	83.7	93.0	98.6	97.9	87.4	78.3	66.0	59.2	77.2
1890	55.5	60.3	68.4	78.1	81.7	89.0							
Means	55.6	60.2	67.8	78.8	82.7	91.0	98.6	97.9	87.4	78.3	66.0	59.2	77.0

SHINGLE SPRINGS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889			56.4	54.6	63.0	74.6	79.5	80.6	76.4	65.2	52.2	48.9	
1890	35.8	39.6	51.3		57.8	75.6							
Means	35.8	39.6	53.8	54.6	60.4	75.1	79.5	80.6	76.4	65.2	52.2	48.9	60.2

SIMS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888			53.7	66.1	72.4	71.7	83.5	88.4	79.1	69.8	53.9	41.0	
1889	38.4	41.9	45.2	56.8	63.1	76.7	72.1	70.1	64.8	54.7	46.6	39.2	55.8
1890	33.8	38.1	42.8	53.1	63.0	65.5							
Means	36.1	40.0	47.2	58.7	66.2	71.3	77.8	79.2	72.0	62.2	50.2	40.1	58.4

***Mean monthly and annual temperature at stations in California*—Continued.**

SISSON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	43.4	......	......	......	......	69.2	63.1	53.4	44.6	41.0	....
1889	34.8	38.4	44.4	51.9	55.5	68.8	71.3	69.5	58.5	47.3	42.0	32.5	51.2
1890	......	34.7	36.8	47.6	61.4	......	......	......	......	......	......	......	....
Means	34.8	36.6	41.5	53.3	54.1	68.8	71.3	69.4	60.8	50.4	43.3	36.8	51.8

SOLEDAD, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	......	......	......	48.4	....
1874	46.9	47.6	48.9	55.4	66.5	72.4	77.0	68.8	67.2	66.3	51.0	42.4	59.2
1875	45.5	52.0	52.5	57.5	69.4	71.2	70.1	67.0	69.3	67.9	58.1	53.4	61.2
1876	43.7	49.9	58.4	59.9	69.1	77.3	70.6	64.5	68.9	57.7	48.0	50.9	59.9
1877	48.1	54.7	55.5	55.8	58.2	61.2	64.7	60.9	60.4	55.0	50.1	41.8	55.5
1878	44.7	43.7	49.4	57.7	59.5	63.0	64.6	63.7	66.3	59.4	51.9	45.0	55.7
1879	47.8	55.7	59.7	60.5	60.3	64.9	62.3	66.6	64.2	63.9	61.0	47.0	59.5
1880	50.6	49.9	52.0	57.7	64.4	64.1	67.4	66.7	67.0	63.2	52.9	51.3	58.9
1881	50.2	55.4	55.2	63.0	65.7	63.2	66.7	63.2	63.2	58.3	47.7	54.8	58.9
1882	42.4	44.4	52.7	58.0	[62.9]	66.3	70.3	69.0	74.4	61.6	51.6	51.2	[58.7]
1883	44.8	46.7	54.0	56.0	61.5	67.5	67.5	65.6	69.0	60.5	53.5	48.7	57.9
1884	45.4	49.7	53.2	58.4	65.9	65.9	65.8	66.2	60.3	57.5	51.9	45.9	57.2
1885	47.5	51.9	56.8	[57.8]	63.6	63.7	65.3	66.0	63.9	59.6	54.4	50.3	[58.4]
1886	47.9	52.9	50.7	56.5	62.8	66.6	66.7	68.5	67.2	56.5	50.1	51.9	58.2
1887	46.4	45.2	57.3	55.7	59.8	66.0	63.1	61.1	63.3	60.7	50.1	45.4	56.2
1888	42.1	50.4	50.5	59.2	57.6	63.6	64.8	63.7	63.2	58.1	51.1	49.1	56.1
1889	44.2	48.1	53.2	58.0	61.3	63.0	62.9	61.8	63.1	58.9	[52.7]	47.8	[56.2]
1890	42.8	46.8	52.2	55.3	61.3	63.1	......	......	......	......	......	......	....
Means	45.9	49.7	53.7	57.8	62.9	66.1	66.9	65.2	65.7	60.3	52.2	48.5	57.9

SONOMA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1850	......	......	......	......	......	......	......	......	......	......	53.8	49.2	....
1851	51.0	52.8	53.0	57.5	......	......	......	......	......	......	......	......	....
1883	......	......	......	......	59.8	......	63.0	......	......	......	......	47.6	....
1884	46.9	48.8	54.4	54.3	62.4	61.2	66.4	65.0	59.8	56.1	[54.7]	[50.0]	[56.7]
1885	......	......	......	......	......	......	......	......	......	......	52.6	49.8	....
1886	49.4	58.3	53.2	54.4	60.2	65.8	67.3	65.0	65.4	59.0	53.7	51.2	58.6
1887	50.4	[52.8]	57.3	[55.5]	60.9	65.4	62.8	64.4	65.6	64.2	53.8	52.2	[58.8]
1888	43.5	53.6	53.6	......	......	67.0	......	......	67.6	63.8	57.5	......	....
1889	46.3	50.5	......	......	......	......	......	......	......	61.5	56.9	......	....
1890	50.0	......	52.4	55.8	61.2	63.2	......	......	......	......	......	......	....
Means	48.2	52.8	54.0	55.5	60.9	64.5	64.9	64.8	64.6	60.9	54.7	50.0	58.0

SOQUEL, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	......	......	......	......	......	......	......	62.2	......	59.0	57.2	54.0	....
1884	55.5	50.9	53.5	54.4	63.6	69.9	65.9	[61.0]	62.8	56.3	55.3	49.3	[58.2]
1885	53.2	49.0	53.9	53.9	51.4	56.5	58.0	54.7	60.7	59.0	58.5	50.7	55.0
1886	51.4	61.1	53.9	55.7	60.9	60.3	62.6	61.3	61.3	51.2	51.4	59.0	57.5
1887	47.7	49.9	58.5	58.2	58.6	58.8	59.1	58.0	56.1	64.6	58.4	52.1	56.7
1888	50.3	52.2	53.6	59.6	61.0	68.4	69.5	63.7	61.5	61.3	51.5	55.0	59.0
1889	48.5	51.9	55.9	60.4	65.8	68.2	64.2	66.2	65.8	63.6	59.2	55.0	60.4
1890	49.2	51.4	57.0	59.7	64.8	66.5	......	......	......	......	......	......	....
Means	50.8	52.3	55.2	57.4	60.9	64.1	63.2	61.0	61.4	59.3	55.9	53.6	57.9

SOUTH VALLEJO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	......	......	......	67.2	67.7	66.3	68.8	67.7	63.7	54.8	44.3	....
1873	46.2	49.3	57.4	58.8	61.3	66.8	67.8	66.6	62.8	56.2	52.7	51.3	58.1
1874	47.1	50.7	50.7	57.1	65.3	67.6	70.0	66.8	66.6	50.4	55.8	47.2	57.9

Mean monthly and annual temperature at stations in California—Continued.

SOUTH VALLEJO, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	42.9	45.6	57.9	61.3	66.1	67.7	67.1	65.9	65.9	67.4	54.1	49.3	59.3
1876	47.5	53.0	53.6	57.9	60.9	70.1	64.2	67.4	66.4	62.8	54.9	50.2	59.1
1877	51.9	54.3	51.4	57.6	59.3	66.2	66.2	64.4	67.1	59.9	53.2	48.7	58.4
1878	48.8	50.6	55.1	57.8	61.7	65.0	66.0	65.3	65.4	62.2	54.5	50.0	58.5
1879	47.0	54.2	57.9	60.1	60.6	68.4	65.9	66.8	67.2	65.9	57.2	49.1	60.0
1880	45.1	48.9	52.2	55.8	64.3	66.3	66.2	66.1	69.6	63.1	55.9	51.0	58.7
1881	51.5	54.6	55.2	60.3	62.8	63.9	67.8	63.6	64.2	59.7	54.6	48.8	58.9
1882	48.8	49.1	54.2	57.4	66.4	66.2	67.9	68.5	68.3	62.6	51.6	51.6	59.4
1883	45.4	49.2	58.0	58.7	64.5	72.2	68.7	68.6	73.7	65.8	60.0	55.3	61.7
1884	54.4	52.2	56.5	63.2	65.6	66.7	70.0	68.2	65.6	63.0	61.1	54.2	61.7
1885	52.7	57.7	61.9	65.3	67.0	67.2	67.3	66.2	66.1	62.4	57.0	49.6	61.7
1886	51.7	51.4	55.0	59.2	65.3	71.8	72.4	71.7	69.3	61.3	55.6	54.6	61.6
1887	53.1	49.4	60.3	62.7	65.3	68.3	67.3	66.5	67.6	65.3	60.3	49.9	61.3
1888	44.4	[51.0]	53.4	57.0	57.8	63.7	66.6	68.6	66.9	63.2	56.0	50.2	[58 2]
1889	48.3	51.0	53.4	57.3	58.6	59.5	58.8	60.0	62.4	58.1	52.3	47.7	55.6
1890	......	45.5	50.1	......	58.6	52.5	......	......	......	......	......	......	......
Means	48.6	51.0	55.2	59.3	63.1	66.2	67.0	66.7	66.8	61.8	55.6	50.2	59.3

SPADRA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	......	......	......	49.1	......
1875	48.9	54.1	55.7	64.3	72.1	74.5	73.1	78.7	69.7	72.0	57.7	53.5	64.5
1876	47.6	53.2	57.4	62.8	66.1	69.6	74.0	73.6	71.9	66.6	61.2	57.1	63.4
1877	56.9	59.1	64.1	62.6	65.9	73.0	76.4	74.6	73.3	64.7	63.9	55.3	65.8
1878	53.8	54.9	56.8	59.7	65.7	71.0	76.5	77.8	73.6	67.0	62.0	56.0	64.6
1879	51.6	58.1	64.1	65.0	71.1	74.6	79.0	82.3	73.7	67.2	53.6	50.2	65.9
1880	51.4	51.9	55.2	59.5	67.6	71.0	73.3	78.4	71.0	66.3	54.1	54.6	62.9
1881	51.2	56.9	53.6	59.7	70.6	71.2	72.4	72.5	70.2	63.3	56.8	60.7	63.3
1882	57.4	51.6	58.2	60.1	67.7	69.0	77.3	76.8	73.2	57.1	56.3	60.1	63.7
1883	53.4	51.9	58.1	58.1	63.6	74.5	72.4	75.3	75.8	62.2	60.8	57.3	63.6
1884	53.2	54.8	56.2	62.0	65.4	70.7	72.5	77.5	70.7	62.9	61.1	58.5	63.8
1885	47.5	63.5	65.6	66.9	68.2	71.0	74.7	79.1	73.0	66.1	62.0	61.8	66.6
1886	58.1	65.0	59.5	63.3	69.3	68.7	70.9	71.9	66.5	53.2	54.8	56.7	63.2
1887	54.2	51.6	61.8	59.4	[67.3]	69.5	66.9	77.6	68.3	64.2	58.3	50.8	[62.5]
1888	49.1	52.2	51.0	61.8	62.7	69.8	68.4	67.7	67.7	61.3	56.6	53.1	60.1
1889	44.6	51.9	53.7	62.1	64.0	69.4	72.6	75.6	72.5	64.7	59.1	54.3	62.5
1890	46.1	51.5	56.7	70.8	69.6	73.0	......	......	......	......	......	......	......
Means	51.6	55.1	58.3	62.4	67.3	71.3	73.4	75.9	71.4	63.9	58.6	55.6	63.7

STEELES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	......	......	......	......	......	65.0	64.0	63.0	63.6	65.0	56.6	50.0	......
1888	45.8	52.0	52.6	58.8	58.6	64.6	65.4	65.1	65.0	63.6	57.1	54.0	58.6
1889	49.4	53.0	57.3	59.2	58.3	63.2	61.8	64.9	65.1	62.6	57.6	51.0	58.6
1890	45.7	50.0	54.2	56.8	60.6	60.3	......	......	......	......	......	......	......
Means	47.0	51.7	54.7	58.3	59.2	63.3	63.7	64.3	64.6	63.7	57.1	51.7	58.3

STOCKTON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1854	43.9	50.2	53.8	62.0	62.5	69.1	77.5	73.2	69.6	64.0	58.8	49.8	61.2
1856	47.1	51.8	58.0	58.1	69.1	71.8	......	......	......	......	......	......	......
1867	......	......	......	......	64.6	69.6	......	......	......	......	......	......	......
1870	......	......	......	......	......	......	......	76.3	68.6	63.9	55.7	46.7	......
1871	46.9	49.2	57.0	60.1	64.6	74.4	73.5	74.7	70.7	63.5	52.5	49.2	61.4
1872	49.1	54.1	56.6	57.3	67.7	72.6	75.6	77.7	71.2	64.4	54.2	46.5	62.2
1873	51.8	47.7	57.7	58.3	63.6	69.6	76.1	72.0	72.2	58.3	56.5	47.1	60.9
1874	46.0	48.6	52.4	59.7	65.7	71.8	77.7	74.3	75.2	68.8	57.3	47.0	62.0
1875	48.4	54.0	54.4	62.6	71.7	72.8	74.2	72.5	70.6	69.9	56.6	50.0	63.1
1876	45.1	50.5	55.2	60.6	65.0	77.3	75.6	72.0	69.9	63.5	53.5	45.5	61.1
1877	48.2	54.9	61.5	62.9	67.2	71.9	77.6	75.6	72.8	62.0	55.8	48.9	63.3
1878	48.3	50.9	54.1	56.7	62.0	69.0	72.5	69.2	67.6	60.5	53.6	46.0	59.2
1879	44.1	54.0	56.6	57.1	58.1	70.2	71.0	74.1	68.2	60.0	50.2	45.4	59.1
1880	44.4	45.4	48.8	54.2	60.6	65.1	70.5	67.6	[70.0]	62.0	49.0	50.0	[57.6]

***Mean monthly and annual temperature at stations in California*—Continued.**

STOCKTON, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	48.7	53.7	57.7	63.6	67.4	65.7	70.9	68.0	67.2	56.7	50.9	44.2	59.6
1882	43.0	47.0	54.0	60.4	65.5	67.8	74.2	74.2	68.6	55.5	50.0	48.2	59.1
1883	43.2	46.1	54.8	52.8	61.0	[70.0]	72.3	70.6	72.0	56.0	46.9	46.0	[57.6]
1884	46.4	45.9	53.1	57.8	63.1	64.1	69.9	71.6	63.0	59.4	54.7	48.6	58.1
1885	47.9	53.5	57.8	61.3	64.0	67.1	69.4	73.1	68.4	62.6	55.3	50.8	60.9
1886	48.1	54.1	53.1	57.4	63.8	72.0	74.6	73.1	68.2	59.0	51.0	50.9	60.4
1887	48.5	45.9	58.0	59.5	64.0	68.2	70.3	68.4	68.5	63.9	53.4	46.7	59.6
1888	44.3	51.1	53.6	62.3	62.0	68.1	71.1	74.9	72.3	62.2	53.3	49.6	60.4
1889	45.1	49.2	55.3	60.5	62.9	70.9	[73.4]	73.2	74.7	64.9	62.2	55.6	[62.3]
1890	46.2	50.2	51.6	59.3	67.8	70.9	......	......	......	......	......	......	......
Means	46.6	50.4	55.2	59.3	64.6	70.0	73.4	72.7	70.0	62.0	53.9	48.2	60.5

SUMMIT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	65.0	53.5	48.8	34.9	25.6	......
1871	27.3	24.1	28.5	34.5	[42.2]	61.9	61.3	[59.5]	53.2	50.1	31.4	30.9	[42.1]
1872	27.8	30.7	31.3	30.1	42.8	......	......	......	......	......	35.5	34.3	......
1873	33.2	26.8	34.4	36.8	43.1	53.1	59.6	58.3	48.7	[44.1]	[34.5]	29.5	[41.8]
1874	30.4	[28.8]	[31.9]	31.0	40.3	46.3	59.9	61.0	59.6	43.6	33.3	28.9	[41.2]
1875	27.0	29.3	28.3	40.0	47.0	50.6	62.0	60.8	54.7	52.8	31.7	34.4	43.2
1876	26.3	30.8	31.0	33.8	39.5	57.8	60.4	59.6	52.6	44.4	37.4	36.5	42.5
1877	31.6	32.8	37.4	34.6	39.7	54.3	65.1	61.4	51.5	41.2	33.9	30.9	42.9
1878	29.3	30.4	33.2	35.1	41.8	54.7	56.8	60.1	52.5	43.4	37.7	31.1	42.2
1879	25.2	32.9	35.5	37.0	37.9	52.7	59.6	63.9	61.7	41.8	35.6	28.6	42.7
1880	30.1	24.0	22.6	31.0	36.2	47.0	60.2	58.8	53.4	42.4	31.3	33.5	39.2
1881	29.9	32.8	31.8	39.0	46.7	53.4	55.6	52.0	48.2	40.6	32.0	31.4	41.1
1882	23.3	27.1	28.7	33.0	42.7	54.1	[59.4]	60.6	50.5	38.1	35.3	25.1	[39.8]
1883	28.8	23.9	37.1	34.7	42.9	58.2	59.2	56.2	52.5	36.0	30.7	29.6	40.8
1884	26.3	25.1	29.5	31.6	39.7	44.2	53.9	57.2	45.7	42.2	38.6	28.1	38.5
1885	28.1	31.6	36.3	39.2	43.3	47.2	55.9	58.3	53.3	47.7	33.5	32.1	42.2
1886	27.3	33.4	28.0	33.6	42.9	53.5	58.9	59.8	54.7	39.8	31.2	34.9	41.5
1887	28.4	22.3	35.0	35.2	43.7	52.4	59.2	57.4	53.7	49.5	39.7	26.7	41.9
1888	22.4	30.9	30.5	40.7	45.9	50.1	60.0	59.6	59.7	48.7	35.5	31.7	43.0
1889	25.3	30.1	34.3	40.4	44.4	61.1	61.6	60.8	56.1	42.1	36.3	28.0	43.4
1890	24.6	28.2	33.6	34.9	......	......	......	......	......	......	......	......	......
Means	27.6	28.8	31.9	35.3	42.2	52.9	59.4	59.5	53.5	44.1	34.5	30.6	41.7

SUMMIT HILL, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	53.0	63.0	62.5	63.5	64.5	68.5	77.0	73.5	79.0	72.0	65.0	57.0	66.5
1871	58.5	55.0	61.5	62.5	71.5	70.0	78.0	80.0	78.0	76.0	65.0	61.0	68.1
1872	55.0	60.5	62.0	66.0	70.0	73.0	73.0	78.0	78.0	73.5	66.0	60.5	68.0
1873	62.5	55.0	62.0	63.0	68.5	73.5	78.0	77.0	76.0	73.0	69.5	60.0	68.2
1874	55.0	55.0	56.0	63.0	67.0	[71.9]	78.0	78.0	75.5	70.5	62.0	60.5	[66.0]
1875	55.0	60.5	59.0	61.0	72.0	74.5	72.5	80.0	74.0	77.0	64.5	61.0	67.6
Means	56.5	58.2	60.5	63.2	68.9	71.9	76.1	77.8	76.8	73.7	65.3	60.0	67.4

SUMNER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	......	......	......	44.5	......
1875	46.2	52.0	53.8	70.4	[71.8]	89.6	93.0	90.7	84.2	73.7	57.4	50.3	[69.4]
1876	47.2	50.0	55.4	62.6	74.2	87.8	91.8	84.4	77.1	71.5	52.5	46.0	66.7
1877	66.3	57.4	65.8	63.3	66.2	83.9	88.2	88.5	80.1	67.8	54.0	53.8	69.6
1878	53.1	52.4	61.2	62.4	71.5	79.2	88.2	82.9	75.0	64.4	54.4	42.0	65.6
1879	44.5	57.3	63.1	68.1	69.6	84.5	84.9	87.2	79.4	65.5	53.6	48.0	67.1
1880	42.5	45.1	52.1	65.1	74.9	81.9	90.1	86.2	77.9	65.2	48.1	48.2	64.8
1881	47.5	55.1	60.6	68.9	75.1	80.5	87.0	84.1	79.9	60.9	47.9	46.7	66.2
1882	44.5	47.3	60.6	[61.7]	73.5	78.8	87.3	82.8	77.9	62.7	53.8	46.6	[64.8]
1883	40.4	51.9	63.7	54.8	71.5	86.7	84.9	80.0	74.5	59.8	52.7	48.3	64.1
1884	51.2	57.8	56.8	59.6	67.7	76.1	81.8	87.1	73.1	61.6	58.0	49.4	65.0
1885	50.6	52.7	62.8	67.3	69.6	74.4	84.2	87.6	78.3	64.6	53.6	48.6	66.2

Mean monthly and annual temperature at stations in California—Continued.

SUMNER, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	47.5	52.9	56.6	60.3	68.5	84.4	88.2	83.8	72.8	56.5	46.7	49.5	64.0
1887	46.4	50.1	63.1	65.3	75.7	85.2	91.7	85.8	80.8	68.5	37.3	47.6	66.5
1888	46.5	54.9	57.7	73.5	75.7	83.2	91.7	89.4	86.5	68.4	......	......	......
Means	47.1	52.6	59.5	64.7	71.8	82.6	88.1	85.8	78.4	65.1	51.5	47.8	66.2

SUSANVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	......	......	......	55.0	41.3	36.8	......
1886	27.2	40.8	39.1	43.9	60.2	67.7	76.1	76.7	59.8	45.6	[40.7]	38.5	[51.4]
1887	......	26.4	......	......	......	......	......	......	......	......	......	......	......
1888	......	......	......	......	......	......	......	......	......	50.0	40.8	38.6	......
1889	29.7	36.6	46.2	53.6	58.7	74.1	76.5	74.0	62.9	49.0	39.9	32.9	52.8
1890	23.9	29.0	36.2	48.2	60.1	61.8	......	......	......	......	......	......	......
Means	26.9	33.2	40.5	48.6	59.7	67.9	76.3	75.4	61.4	49.9	40.7	36.7	51.4

SUTTER CREEK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	42.8	43.4	54.0	55.7	59.5	66.6	71.2	69.4	67.2	62.7	52.2	44.8	57.5
1888	41.2	49.0	52.6	58.9	59.9	63.7	65.3	72.9	71.0	58.8	49.7	46.9	57.5
1889	41.8	47.6	53.1	55.7	60.9	67.6	68.9	69.4	62.9	55.7	48.8	43.6	56.3
1890	36.2	......	......	......	......	......	......	......	......	......	......	......	......
Means	40.5	46.7	53.2	56.8	60.1	66.0	68.5	70.6	67.0	59.1	50.2	45.1	57.0

TEHACHAPI, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	......	......	47.3	42.3	......
1877	42.5	43.4	50.4	50.1	56.3	71.1	77.8	70.6	67.7	55.5	45.3	41.1	56.0
1878	41.1	40.6	45.0	50.4	60.6	72.5	77.3	76.9	66.2	57.4	47.6	40.4	56.3
1879	36.8	46.6	50.6	54.0	55.6	74.8	75.8	76.8	[65.3]	64.5	42.2	26.5	[55.8]
1880	36.1	33.1	39.5	48.0	57.1	70.2	76.8	75.9	70.6	60.8	40.5	41.1	54.1
1881	39.8	43.7	45.0	57.3	71.3	68.3	77.8	68.0	59.0	47.7	42.2	31.5	54.3
1882	32.7	33.6	41.8	48.3	60.1	71.3	78.5	74.5	62.8	51.6	45.2	43.4	53.6
1883	33.3	36.1	48.2	44.1	54.8	70.0	74.7	67.3	66.2	47.6	44.4	44.9	52.6
1884	41.9	39.3	44.0	48.4	55.3	59.6	65.0	71.7	58.4	58.4	51.5	38.8	52.7
1885	37.3	38.8	45.0	52.7	60.8	64.6	74.2	77.6	65.1	56.0	46.3	44.4	55.2
1886	39.7	44.3	41.2	46.1	60.6	74.2	79.9	77.7	66.9	50.7	42.4	44.3	55.7
1887	37.4	33.3	49.7	49.9	56.2	63.9	73.7	71.0	64.4	56.8	46.5	39.0	53.5
1888	32.9	41.3	46.2	54.7	61.4	......	......	......	68.4	49.7	42.7	39.0	......
1889	35.5	38.5	45.8	55.4	62.3	78.3	82.3	78.3	67.6	55.8	48.0	39.6	57.3
1890	32.8	35.1	44.5	51.3	59.6	66.6	......	......	......	......	......	......	......
Means	37.1	39.1	45.5	50.8	59.4	69.6	76.2	73.9	65.3	54.8	45.2	39.7	54.7

TEHAMA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	[46.1]	48.5	55.8	63.0	68.8	84.2	87.6	91.0	89.8	67.8	54.7	55.3	[67.8]
1872	[46.1]	59.5	55.8	59.9	75.8	78.0	84.7	82.1	72.7	61.2	54.0	47.5	[64.8]
1873	51.1	46.2	56.2	61.5	65.6	72.3	86.3	......	......	......	54.3	43.7	......
1874	44.5	46.1	49.0	55.2	68.2	77.5	82.6	82.0	78.7	65.1	51.7	46.8	62.3
1875	43.3	56.0	55.5	70.6	78.3	81.3	89.6	83.4	81.2	65.7	[54.1]	[47.7	[67.2]
1876	45.7	52.2	54.5	59.8	68.0	82.2	83.9	80.2	76.2	67.3	54.0	48.1	64.3
1877	50.4	55.3	60.3	63.8	69.6	81.7	84.9	82.8	78.7	66.6	56.0	47.9	66.5
1878	49.9	51.7	57.4	61.2	70.2	81.1	83.7	83.6	79.0	67.7	56.0	45.2	65.6
1879	44.2	51.4	55.4	62.1	63.9	78.8	81.9	82.8	75.0	62.3	50.2	45.3	62.8
1880	44.9	44.3	49.2	51.5	65.4	69.6	82.9	80.5	69.2	65.4	52.8	49.6	60.4
1881	50.5	52.8	56.0	64.2	70.3	77.1	81.7	75.8	71.3	60.7	50.6	45.3	63.0
1882	42.8	[50.7]	50.4	60.0	70.2	83.7	91.7	88.0	65.1	60.5	47.9	43.2	[62.8]
1883	39.0	43.9	[55.3]	56.4	67.6	80.9	83.1	76.3	73.1	54.8	46.6	45.4	[60.2]
1884	47.8	47.0	54.2	56.1	[69.2]	68.9	73.6	78.8	69.6	66.6	62.0	48.2	[61.8]

***Mean monthly and annual temperature at stations in California*—Continued.**

TEHAMA, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	49.3	52.9	59.9	62.1	70.5	72.8	79.6	78.0	73.3	68.5	59.9	48.0	64.6
1886	45.7	55.8	52.5	56.0	66.5	78.0	81.0	80.5	74.1	58.7	50.7	49.1	62.4
1887	49.0	44.8	57.7	56.9	63.6	73.4	77.9	72.5	75.1	67.5	57.5	46.5	61.9
1888	41.1	54.6	54.7	66.1	65.4	68.6	78.8	81.1	72.7	64.5	57.9	55.0	63.4
1889	50.2	51.7	60.1	65.6	75.6	79.6	85.6	79.7	76.0	60.3	56.5	49.1	65.8
1890	40.2	49.3	56.5	70.1	71.1	72.9	......	......	......	......	......	......	....
Means	46.1	50.7	55.3	61.1	69.2	77.1	83.2	81.1	75.0	64.0	54.1	47.7	63.7

TEJON, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1855	43.6	46.3	51.1	48.9	55.8	70.4	76.6	75.9	64.5	61.9	45.2	39.3	56.6
1856	45.8	48.4	51.3	54.9	62.1	72.0	79.8	75.9	68.8	54.2	48.1	41.0	58.5
1857	45.2	46.4	56.1	61.6	65.1	73.5	75.5	79.4	69.0	62.6	48.4	41.9	60.4
1858	43.3	43.4	45.2	54.0	59.9	70.2	76.6	74.2	71.1	54.7	51.8	40.5	57.1
1859	44.1	46.3	42.1	51.0	60.5	77.9	76.6	73.0	66.8	61.9	49.9	43.4	57.8
1860	42.0	43.1	49.9	52.9	54.5	71.5	76.6	76.8	66.8	55.3	49.3	43.8	56.9
1861	40.1	50.4	54.9	58.5	62.1	......	......	......	......	......	......	......	....
1863	......	......	......	......	......	......	......	......	......	71.5	60.5	46.7	....
1864	44.8	......	......	58.0	60.0	64.9	74.6	73.9	......	......	......	......	....
Means	43.6	46.3	50.1	55.0	60.0	71.5	76.6	75.6	67.8	60.3	50.5	42.4	58.3

TEMPLETON, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	46.1	47.1	59.1	61.7	67.6	71.2	73.3	69.7	68.9	65.2	55.1	47.8	61.1
1888	46.0	54.0	54.4	61.8	61.2	69.8	71.2	73.7	70.4	60.3	52.6	50.3	60.5
1889	44.9	48.3	66.1	61.9	63.1	67.8	72.5	73.3	68.0	60.7	53.3	49.6	60.0
1890	43.3	47.2	53.6	58.6	63.9	69.1	......	......	......	......	......	......	....
Means	45.1	49.2	55.8	61.0	64.0	69.5	72.3	72.2	69.1	62.1	53.7	49.2	60.3

TENNANT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	[48.7]	50.5	54.6	57.0	62.9	69.0	73.0	71.5	67.6	63.9	54.9	45.6	[59.5]
1879	46.4	54.8	57.9	57.2	61.9	70.1	69.8	74.8	70.3	61.0	49.5	45.4	59.9
1880	45.2	46.4	48.7	54.7	61.0	66.0	72.6	72.0	69.4	62.0	50.6	51.8	58.4
1881	58.9	55.0	55.3	62.7	67.1	69.5	74.5	72.3	70.8	58.4	51.5	48.5	62.0
1882	42.9	[51.3]	56.3	56.5	66.9	[67.8]	79.9	75.2	72.2	59.8	52.9	53.2	[61.2]
1883	49.4	50.3	60.2	[57.8]	61.0	71.6	70.8	72.2	71.9	60.3	53.2	52.4	[60.9]
1884	49.3	50.1	52.7	56.4	64.4	64.8	69.4	72.5	64.0	61.9	58.7	48.4	59.4
1885	48.8	52.2	57.6	60.3	63.8	63.6	68.5	71.5	71.9	65.7	......	......	....
Means	48.7	51.3	55.4	57.8	63.6	67.8	72.3	72.8	69.8	61.6	53.0	49.3	60.3

TERWAH, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1859	43.7	47.8	49.2	52.2	54.9	61.3	59.6	59.6	58.7	57.1	49.2	43.7	53.1
1860	41.6	47.1	48.4	50.3	53.4	57.9	60.0	62.2	61.2	54.9	51.7	46.5	52.9
1861	45.8	48.6	49.9	52.6	54.8	......	......	......	......	52.8	......	......	....
Means	43.7	47.8	49.2	51.7	54.4	59.6	59.8	60.9	60.0	54.9	50.4	45.1	53.1

TIOGA MINING DISTRICT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	19.3	20.1	30.8	29.3	37.5	50.2	53.0	51.4	47.7	31.8	28.8	20.7	35.0
1884	22.2	22.9	23.2	31.0	41.0	43.7	......	......	......	......	......	......	....
Means	20.8	21.5	27.0	30.2	39.2	47.0	53.0	51.4	47.7	31.8	28.8	20.7	34.9

Mean monthly and annual temperature at stations in California—Continued.

TOWLES, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	70.6	75.2	62.9	62.4	46.7	45.7	......
1886	41.7	52.7	45.2	49.8	56.4	65.1	71.7	69.8	67.1	54.1	49.7	51.9	56.3
1887	46.5	34.5	52.2	50.6	55.3	62.1	68.1	65.3	64.8	63.3	54.6	46.1	55.3
1888	34.5	46.4	49.3	53.9	60.9	55.0?	69.0	60.8	62.6	54.1	51.3	43.2	53.4
1889	40.6	46.4	49.0	55.0	60.1	73.9	77.3	75.3	72.8	56.8	50.7	38.2	58.0
1890	30.7	36.7	41.9	51.6	60.3	65.9	......	......	......	......	......	......	......
Means	38.8	43.3	47.5	52.2	58.6	64.4	71.3	69.3	66.0	58.1	50.6	45.0	55.4

TRACY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	......	......	......	......	......	......	82.7	79.0	68.6	61.8	49.3	42.4	......
1880	44.1	47.9	52.1	55.4	67.4	78.0	81.5	79.9	68.8	61.3	48.4	49.4	61.2
1881	47.7	54.6	55.9	66.8	77.8	76.0	82.5	76.8	73.6	59.5	54.0	49.0	64.5
1882	47.7	52.7	57.9	57.0	70.0	67.5	81.8	78.2	72.5	60.3	51.0	50.2	62.2
1883	43.1	47.3	56.8	57.6	65.8	79.2	80.2	73.1	73.5	60.1	51.7	47.1	61.3
1884	47.6	50.7	56.2	61.3	70.2	74.2	81.1	82.1	71.4	65.7	55.4	48.2	63.7
1885	49.1	56.3	60.7	65.3	76.5	73.4	80.1	82.9	76.4	66.2	58.0	51.7	66.4
1886	48.0	55.7	55.1	60.9	69.2	80.4	84.1	81.4	73.5	63.8	53.2	52.1	64.8
1887	50.9	54.6	62.1	65.0	66.2	75.4	81.3	76.3	73.4	67.6	56.8	49.2	64.9
1888	47.6	51.4	52.5	65.4	68.3	72.6	75.4	78.9	73.2	64.5	57.3	50.2	63.1
1889	40.7	38.6	53.3	61.6	70.9	78.6	79.5	81.9	79.1	65.5	49.3	43.2	61.8
1890	42.5	40.2	49.6	56.2	69.0	73.0	......	......	......	......	......	......	......
Means	46.3	50.0	55.7	61.1	70.1	75.3	80.9	79.1	73.1	63.3	53.1	48.4	63.0

TRAVER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	47.9	54.1	52.3	59.2	70.5	78.9	81.4	81.5	72.9	56.8	47.8	[46.9]	[62.5]
1887	46.2	47.0	62.5	64.3	......	83.0	84.6	79.1	74.1	......	......	46.5	......
1888	[43.6]	[50.2]	54.8	65.2	76.4	83.0	89.0	85.5	81.4	69.0	57.4	43.2	[66.6]
1889	37.8	48.8	57.9	65.4	70.7	85.8	89.0	83.3	75.2	67.8	58.9	51.1	66.0
1890	42.5	50.8	53.5	64.0	73.2	80.5	......	......	......	......	......	......	......
Means	43.6	50.2	56.2	63.6	72.7	82.2	86.0	82.4	75.9	64.5	54.7	46.9	64.9

TROPICO, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	48.3	52.7	55.7	64.3	65.7	71.8	74.0	72.5	74.5	63.7	55.3	53.1	62.6
1889	48.9	51.3	55.4	62.6	65.8	67.9	73.4	72.5	72.5	64.5	59.9	53.7	62.4
1890	47.3	50.9	55.1	61.4	68.2	71.4	......	......	......	......	......	......	......
Means	48.2	51.6	55.4	62.8	66.6	70.4	73.7	72.5	73.5	64.1	57.6	53.4	62.5

TRUCKEE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	......	......	......	......	......	......	......	......	......	20.4	......
1871	24.6	28.3	32.0	39.0	44.2	56.0	73.1	67.1	61.2	44.1	32.8	27.1	44.1
1872	23.6	25.1	28.3	25.7	37.6	49.0	53.0	53.0	50.5	38.7	33.3	29.9	37.3
1873	32.9	24.4	33.9	38.8	46.3	55.8	65.8	52.5	54.9	41.1	36.6	24.2	42.3
1874	21.7	22.6	26.3	36.3	46.6	53.3	67.6	59.3	58.0	45.8	35.7	28.7	41.8
1875	26.9	27.7	32.0	45.0	51.7	56.4	66.7	63.0	56.3	50.4	38.0	32.2	45.5
1876	22.8	28.1	30.7	38.6	45.9	60.0	62.6	60.3	54.3	45.5	37.6	31.6	43.2
1877	27.6	33.9	42.0	40.2	45.6	57.4	66.6	62.5	58.9	41.5	39.7	30.6	45.5
1878	29.5	30.4	36.6	42.0	57.7	63.3	65.7	67.8	58.1	47.1	40.8	29.8	47.4
1879	25.1	34.8	36.3	40.5	46.1	61.7	66.8	66.5	60.9	43.5	33.1	22.9	44.8
1880	21.8	21.8	25.9	35.3	46.0	58.9	68.2	63.4	57.6	48.5	30.3	33.1	42.6
1881	29.4	34.6	35.9	50.0	54.6	60.0	66.1	61.1	55.6	42.6	29.0	28.6	45.6
1882	22.0	22.7	28.1	34.4	51.1	[58.0]	69.9	66.6	55.8	[44.8]	[35.8]	32.1	[43.4]
1883	22.9	21.4	36.7	39.7	47.7	61.9	68.1	61.8	57.8	43.5	33.9	29.8	43.8
1884	25.6	21.8	29.5	39.7	50.8	56.0	63.2	65.6	52.3	44.1	37.3	28.1	42.8
1885	27.6	34.3	39.9	42.8	49.8	52.8	62.2	61.5	53.8	46.8	36.7	31.5	45.0

Mean monthly and annual temperature at stations in California—Continued.

TRUCKEE, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	25.6	32.7	29.7	38.4	51.5	58.3	64.9	61.8	52.3	39.1	32.0	35.9	43.5
1887	29.1	24.0	38.2	38.5	50.0	57.5	62.9	60.0	52.1	46.4	37.8	25.1	43.5
1888	20.2	29.6	33.6	46.5	51.6	56.0	67.3	64.9	61.6	50.6	40.0	34.0	46.3
1889	23.1	31.5	41.1	50.3	54.5	70.5	69.3	69.2	61.1	46.3	39.4	29.7	48.8
1890	21.7	25.1	30.8	38.8	47.2	56.4	......	......	......	......	......	......	......
Means	25.2	27.7	33.4	40.0	48.8	58.0	65.8	62.5	56.5	44.8	35.8	29.3	44.0

TULARE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	[45.7]	[50.3]	51.4	60.4	73.9	88.9	95.2	86.4	84.8	76.9	53.2	39.1	[67.2]
1875	44.8	46.3	[56.4]	[63.2]	70.7	78.4	88.9	81.6	75.3	69.4	52.7	43.1	[64.2]
1876	42.9	42.6	47.6	58.0	76.7	86.5	83.0	85.2	73.2	61.8	49.0	41.6	[62.3]
1877	49.1	54.1	62.2	61.9	[71.7]	82.0	88.0	87.4	81.8	71.3	56.6	47.8	[67.8]
1878	48.5	51.1	55.6	59.2	70.4	81.9	83.0	83.7	76.1	68.2	58.7	48.3	65.4
1879	45.2	52.4	59.2	65.9	68.4	83.0	86.5	87.8	79.4	65.0	52.0	44.8	65.8
1880	40.7	44.1	46.7	59.7	71.9	78.1	88.1	84.2	78.2	60.2	47.1	45.8	62.1
1881	46.5	49.9	54.1	66.3	71.8	77.0	79.5	77.4	73.8	59.7	46.4	46.8	62.4
1882	41.8	45.5	53.7	61.3	73.1	77.5	87.2	84.2	76.1	62.4	49.0	47.1	63.2
1883	41.5	46.5	62.4	60.0	68.4	84.6	88.1	83.4	79.5	59.2	50.3	40.9	63.7
1884	46.8	53.0	54.8	60.8	70.7	74.7	81.4	83.4	70.9	62.6	56.8	47.5	63.6
1885	51.0	59.8	64.4	64.8	71.1	75.4	85.0	87.7	77.1	70.1	60.0	51.3	68.1
1886	49.9	57.3	55.1	60.7	66.9	76.6	83.7	87.3	78.1	64.8	49.5	50.7	65.0
1887	47.1	48.1	58.8	64.4	69.3	79.1	84.8	80.8	78.6	71.6	58.1	43.3	65.3
1888	44.0	51.5	57.0	73.0	75.0	80.5	86.4	85.0	81.1	71.6	61.7	50.2	68.1
1889	45.9	52.4	62.7	68.4	74.0	85.3	88.3	86.3	79.1	66.6	57.3	53.1	68.3
1890	45.5	50.6	57.4	66.2	74.4	78.5	......	......	......	......	......	......	......
Means	45.7	50.3	56.4	63.2	71.7	80.5	86.1	84.5	77.7	66.3	53.6	46.3	65.2

TURLOCK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	[47.0]	57.3	59.6	64.1	66.4	80.0	78.8	82.0	73.4	66.4	54.7	47.7	[64.8]
1880	46.8	46.6	53.0	52.0	64.9	73.0	81.1	78.4	76.1	66.5	51.1	50.8	61.7
1881	49.6	54.9	58.6	64.5	67.3	69.8	77.1	75.9	78.1	59.9	52.4	47.0	62.9
1882	41.1	46.6	51.1	52.9	70.0	66.4	84.9	78.3	73.8	64.3	51.5	48.9	60.8
1883	40.1	44.4	52.5	62.1	64.7	76.7	81.5	85.2	79.7	67.4	57.8	55.6	64.0
1884	47.1	50.3	55.1	69.1	75.6	75.3	83.8	82.1	68.2	58.6	52.8	50.7	64.1
1885	49.1	53.7	64.7	68.2	76.5	81.0	85.2	87.2	78.1	65.9	59.1	56.4	68.8
1886	54.6	57.4	56.4	63.7	71.3	74.9	81.6	82.6	74.1	61.2	55.4	55.4	65.7
1887	51.7	52.6	61.7	66.4	73.8	77.5	80.0	73.5	74.4	69.2	55.8	48.1	65.4
1888	44.0	53.2	55.9	64.6	67.0	74.1	78.2	81.6	76.5	65.2	54.6	53.1	64.0
1889	46.9	51.4	59.6	64.5	71.0	79.6	81.3	82.2	74.0	61.8	56.0	51.9	65.0
1890	45.6	50.1	55.9	62.5	70.6	75.4	......	......	......	......	......	......	......
Means	47.0	51.5	57.0	62.9	69.9	75.3	81.2	80.8	75.1	64.2	54.7	51.4	64.2

UNION, CAMP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1863	......	......	......	......	......	......	......	......	......	......	55.2	......	......
1864	48.6	52.6	......	65.3	71.1	74.7	78.7	78.0	70.3	......	51.4	49.7	......
1865	46.8	47.7	53.4	59.6	69.3	73.2	74.6	70.2	......	......	......	......	......
Means	47.7	50.2	53.4	62.4	70.2	74.0	76.6	74.1	70.3	......	53.3	49.7	......

UNION RANCH, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1858	......	......	53.8	......	......	......	......	......	......	......	......	......	......
1859	......	......	......	......	68.6	81.7	79.6	76.9	72.8	65.7	53.4	42.9	......
1860	45.4	47.7	53.3	57.1	59.0	69.7	79.4	80.3	74.4	60.6	51.9	47.6	60.5

Mean monthly and annual temperature at stations in California—Continued.

UNION RANCH, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1861	45.2	49.5	[55.3]	[61.8]	67.9	74.1	[86.0]	79.3	74.8	61.8	53.3	50.4	[63.3]
1862	44.4	45.9	51.3	56.8	60.3	74.3	80.8	80.8	72.6	66.9	52.6	45.0	61.0
1863	46.6	......	......	......	......	......	......	......	......	......	......	......	......
Means	45.4	47.7	53.4	58.6	64.0	75.0	81.4	79.3	73.6	63.8	52.8	46.5	61.8

UPPER MATTOLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	45.0	40.2	49.7	52.2	[59.8]	61.7	62.5	62.8	61.4	54.8	49.5	44.5	[53.7]
1888	42.3	52.0	47.9	57.2	57.1	60.3	62.5	64.3	64.1	......	......	......	......
1889	45.1	51.8	55.6	59.7	58.6	61.1	63.8	65.2	62.9	57.6	54.4	45.4	56.8
1890	43.8	47.5	52.6	57.2	63.6	61.0	......	......	......	......	......	......	......
Means	44.0	47.9	51.4	56.6	59.8	61.0	62.9	64.1	62.8	56.2	52.0	45.0	55.3

VACAVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	52.6	[54.0]	[59.6]	[63.8]	65.7	72.2	74.7	72.2	73.8	68.6	61.0	48.0	[63.8]
1870	48.4	51.4	49.8	57.8	......	......	......	......	......	......	......	......	......
1887	......	......	......	......	......	......	......	......	73.2	68.0	53.0	48.1	......
1888	43.1	[50.8]	54.3	63.0	63.4	69.2	73.9	79.5	76.3	68.7	56.0	49.3	[62.3]
1889	46.1	50.1	57.0	61.0	64.9	72.5	74.4	75.5	74.5	62.9	56.2	48.6	62.0
1890	42.8	47.7	52.2	58.3	65.9	70.4	......	......	......	......	......	......	......
Means	46.6	50.8	54.6	60.8	65.0	71.1	74.3	75.7	74.4	67.0	56.[illegible]	48.5	62.1

VALLEY SPRINGS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	81.8	......	79.7	67.7	......	49.7	......
1889	45.0	48.0	58.4	64.8	67.4	78.9	82.5	81.2	76.1	63.6	55.2	49.5	64.2
1890	40.1	44.8	50.8	59.9	66.0	71.9	......	......	......	......	......	......	......
Means	42.6	46.4	54.6	62.4	66.7	75.4	82.2	81.2	77.9	65.6	55.2	49.6	63.3

VINA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	72.8	66.0	......	50.8	......
1889	45.8	49.1	58.3	63.5	67.8	80.8	81.8	76.9	74.9	60.9	......	46.9	......
1890	41.7	46.5	53.0	63.2	70.9	76.8	......	......	......	......	......	......	......
Means	43.8	47.8	55.6	63.4	69.4	78.8	81.8	76.9	73.8	63.4	......	48.8	......

VISALIA, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	44.8	51.3	50.5	59.2	68.5	75.4	84.8	82.1	70.7	60.0	50.3	40.0	61.5
1871	44.1	46.2	54.1	......	......	......	81.4	......	......	......	......	......	......
1877	......	......	......	......	......	......	80.3	77.0	72.3	60.7	52.4	47.9	......
1878	48.9	51.0	55.0	58.9	67.2	76.5	78.2	77.8	70.5	61.5	52.7	44.5	61.9
1879	44.7	55.4	60.6	61.8	63.8	76.3	79.0	81.0	74.5	61.1	50.1	45.3	62.8
1880	42.4	45.8	49.1	56.5	64.3	72.6	78.6	76.4	72.3	61.1	46.9	49.9	59.7
1881	48.0	53.7	54.8	63.4	68.5	71.9	76.5	74.2	68.9	56.1	47.9	47.2	60.9
1882	42.8	45.5	54.4	57.5	67.2	72.6	80.8	78.8	67.0	58.3	48.3	47.3	60.0
1883	41.1	47.2	60.4	56.8	65.0	76.1	......	......	......	......	......	......	......
Means	44.6	49.5	54.9	59.2	66.4	74.5	80.0	78.2	70.9	59.8	49.8	46.0	61.2

Mean monthly and annual temperature at stations in California—Continued.

VOLCANO SPRINGS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888												52.2	
1889	54.2	57.9	66.9	81.8	84.9	92.9	99.8	102.5	89.7	78.5	65.7	62.2	78.1
1890	52.7	58.7	69.1	79.2	88.9	95.7							
Means	53.4	58.3	68.0	80.5	86.9	94.3	99.8	102.5	89.7	78.5	65.7	57.2	77.9

WALLA WALLA CREEK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886			40.2	43.2	52.8	58.7	63.8	64.6	57.8	44.3	35.6	38.3	
1887												33.4	
1888	[29.4]	40.6	41.2	53.5	57.7	56.6	67.2	69.4	66.1	54.2	42.9	40.2	[51.6]
1889	32.8	35.9	45.8	48.6	55.0	66.9	70.0	68.8	55.8	51.9	42.6	33.0	50.6
1890	25.9	31.7	32.2	47.2	58.4	59.8							
Means	29.4	36.1	39.8	48.1	56.0	60.5	67.0	67.6	59.9	50.1	40.4	36.2	49.3

WALNUT CREEK, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	47.4	45.9	57.8				67.5	67.4	70.2	68.2		50.8	
1888	44.7	51.7	54.4	61.2	61.3	69.0	72.3	74.9	74.7	68.3	60.7	54.1	62.3
1889	54.1	55.3	56.9	60.4	63.4	68.1	70.5	71.5	71.0	62.0	54.7	49.3	61.4
1890	44.2	47.8	49.8	57.9	62.5								
Means	47.6	50.2	54.7	39.8	62.4	68.6	70.1	71.3	72.0	66.2	57.7	51.4	61.0

WATSONVILLE, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	51.5	53.1	56.4	61.2	61.7	63.8	66.8	63.8	59.7	60.2	56.3	49.6	58.8
1870	54.4	56.1	53.4	55.9	59.0	61.0	66.0	67.3	61.5	60.0	55.9	49.6	58.3
1871	51.8	49.7	51.7	55.6			63.2	63.3	61.6			54.1	
1872	53.8	55.3											
Means	52.9	53.6	54.5	57.6	60.4	62.4	65.3	64.8	60.9	60.1	56.1	51.1	58.3

WESTLEY, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888								84.1	78.7	69.0	58.7	54.9	
1889	48.5	51.8	61.0	69.7	73.0	82.0	84.1	81.3	75.6	67.2	58.3	53.7	67.2
1890	47.0	50.3	58.2	64.2	74.0	77.3							
Means	47.8	51.0	59.6	67.0	73.5	79.6	84.1	82.7	77.2	68.1	58.5	54.3	67.0

WEST POINT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887		35.8	50.4	49.4	57.9	64.3	71.3	66.8	57.8	61.6	51.7	44.7	

WESTPORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885											56.8	53.5	
1886	50.8	51.2	48.3	50.8	54.6	58.1	61.1	60.1	57.9	53.5	54.2	54.2	54.6
1887	50.3	44.8	50.0	50.5	52.2	55.6	55.8	56.5	54.9	54.6	54.6	48.4	52.4
1888	46.0	48.5	49.6	54.6	54.8	65.0	61.2	58.6	58.1	56.5			
Means	49.0	48.2	49.3	52.0	53.9	59.6	59.4	58.4	57.0	54.9	55.2	52.0	54.1

Mean monthly and annual temperature at stations in California—Continued.

WHEATLAND, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	47.3	44.1	54.2	58.8	66.8	73.2	77.2	74.1	72.8	67.0	54.7	45.4	61.3
1888	43.0	52.4	53.8	63.9	64.8	69.2	75.8	78.8	77.2	66.2	53.4	48.1	62.2
1889	44.1	48.9	56.9	60.3	64.8	73.8	75.6	76.1	72.6	60.9	52.9	46.9	61.2
1890	41.0	45.6	51.0	58.5	65.4	69.4	......	......	......	......	......	......	......
Means	43.8	47.8	54.0	60.4	65.4	71.4	76.2	76.3	74.2	64.7	53.7	46.8	61.2

WHITE WATER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	......	62.0	53.8	......
1878	52.8	56.3	61.1	63.9	71.6	79.5	89.8	88.2	82.9	75.4	62.5	53.7	69.8
1879	52.9	63.7	66.9	68.6	71.5	81.9	89.1	91.9	88.4	[71.2]	[61.4]	52.4	[71.7]
1880	51.4	48.9	56.2	59.4	79.2	85.8	89.6	94.2	89.2	76.0	62.3	54.0	70.5
1881	46.4	54.9	59.7	66.4	73.6	85.2	91.7	90.0	80.0	67.6	59.2	55.3	67.5
1882	52.0	51.2	60.5	65.8	76.5	78.8	94.2	93.8	85.4	68.1	57.4	57.8	70.1
1883	50.9	55.9	64.1	64.2	71.8	89.8	94.9	92.6	88.8	71.8	64.0	58.3	72.3
1884	52.4	55.3	50.9	60.4	67.6	76.3	89.2	82.5	73.4	68.6	62.2	49.4	65.7
1885	50.8	57.6	62.3	61.7	69.9	73.1	83.8	86.3	79.4	......	......	......	......
Means	51.2	55.5	60.2	63.8	74.0	81.3	90.3	89.9	83.4	71.2	61.4	54.3	69.7

WHITTIER, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	76.1	79.9	72.1	61.7	55.4	......
1889	54.3	59.8	63.6	65.4	68.1	71.2	78.1	76.7	76.5	68.4	65.9	60.2	67.4
1890	52.0	61.4	51.2	65.2	67.0	70.3	......	......	......	......	......	......	......
Means	53.2	60.6	57.4	65.3	67.6	70.8	78.1	76.4	78.2	70.2	63.8	57.8	66.6

WILLIAMS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	......	......	59.8	48.5	......
1877	50.8	55.7	61.0	65.0	70.2	80.3	82.1	79.3	77.1	63.6	63.5	46.3	66.2
1878	46.9	50.3	50.4	59.8	68.1	79.2	79.7	79.6	72.5	64.4	53.6	45.0	62.5
1879	43.2	53.0	56.8	61.5	63.5	79.8	81.1	82.5	75.2	62.6	50.1	43.7	62.8
1880	43.4	41.9	48.1	56.1	64.8	74.9	82.1	77.9	76.7	65.2	50.5	50.4	61.2
1881	49.4	53.7	55.2	66.0	[69.6]	76.1	80.3	75.4	74.8	56.4	51.4	46.8	[62.9]
1882	43.7	45.4	53.6	62.3	70.8	79.9	86.0	83.8	74.7	56.6	47.2	47.8	62.6
1883	41.6	46.5	56.4	57.5	68.0	[78.2]	84.0	[81.6]	77.4	62.1	51.4	42.4	[62.3]
1884	46.9	47.2	52.6	58.7	71.2	69.9	77.7	80.6	69.2	64.0	57.6	46.1	61.8
1885	46.8	54.7	60.3	62.3	72.6	75.3	82.3	85.5	76.8	69.6	54.3	48.2	65.7
1886	46.8	52.5	54.7	61.0	70.5	83.8	85.8	82.7	75.7	66.6	49.5	52.6	65.2
1887	48.6	44.4	59.9	63.9	74.0	78.9	83.1	81.2	75.4	72.7	59.4	51.8	66.1
1888	46.1	53.4	52.6	64.1	68.9	79.0	87.7	82.9	84.8	74.3	55.1	47.9	66.4
1889	45.2	48.6	54.5	59.9	70.3	84.8	93.9	88.2	[75.9]	59.1	[54.1]	38.9	[64.4]
1890	37.8	41.8	50.1	63.1	71.7	74.8	......	......	......	......	......	......	......
Means	45.5	49.4	54.7	61.5	69.6	78.2	83.5	81.6	75.9	64.4	54.1	46.9	63.8

WILLOW, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	......	......	......	......	54.0	45.5	......
1879	42.9	52.3	56.9	62.5	66.1	82.2	84.1	84.6	77.5	63.1	50.3	43.3	63.8
1880	42.7	45.2	48.9	57.4	67.5	77.2	86.4	80.3	75.5	66.6	50.5	50.1	62.4
1881	49.2	52.3	55.1	66.1	74.7	[77.4]	86.4	77.2	75.7	58.2	51.4	46.5	[64.2]
1882	43.6	41.8	53.6	57.8	72.4	82.7	88.3	84.5	78.2	64.9	58.2	43.9	64.2
1883	37.3	46.5	62.0	63.8	70.1	[77.4]	85.8	81.9	81.1	63.8	55.2	45.4	[64.2]
1884	47.4	46.0	58.9	53.2	64.7	76.6	78.2	79.6	68.1	62.4	57.2	45.2	61.5
1885	45.2	47.2	65.8	65.0	71.6	73.1	79.2	81.9	76.9	69.0	51.0	50.5	64.7
1886	44.1	53.1	52.3	55.6	67.5	81.1	82.7	83.1	80.0	64.2	52.9	51.0	64.0
1887	50.0	45.7	60.2	64.7	73.1	80.0	86.3	87.0	78.4	71.7	56.0	46.3	66.6
1888	40.3	51.1	51.6	64.1	67.2	70.9	79.8	78.8	84.2	67.8	52.5	47.6	63.0

Mean monthly and annual temperature at stations in California—Continued.

WILLOW, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	42.9	47.6	51.8	59.7	67.9	80.3	82.2	79.7	74.7	60.7	53.0	46.6	62.3
1890	42.2	47.4	49.9	57.7	69.3	69.6	......	......	......	......	......	......	......
Means	44.0	48.0	55.6	60.6	69.3	77.4	83.6	81.7	77.3	64.8	53.5	46.8	63.6

WINTERS, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	......	......	......	......	56.4	47.4	......
1886	48.3	......	......	......	......	......	......	......	......	......	......	......	......
1888	......	......	......	......	......	......	......	84.5	82.4	72.4	60.5	51.3	......
1889	47.5	53.8	60.3	67.4	73.3	82.6	85.5	84.9	80.2	66.9	56.9	51.2	67.5
1890	44.0	50.1	56.0	64.8	74.3	......	......	......	......	......	......	......	......
Means	46.6	52.0	58.2	66.1	73.8	82.6	85.5	84.7	81.3	69.6	57.9	50.0	67.4

WOODLAND, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	......	......	......	......	......	......	......	......	......	......	53.9	46.6	......
1877	49.7	54.6	60.9	61.7	65.7	77.1	80.1	76.1	74.7	59.9	54.9	48.6	63.7
1878	48.7	50.7	56.4	61.6	67.4	75.4	76.0	75.7	68.4	63.2	54.5	45.3	61.9
1879	44.4	54.3	57.7	61.7	64.3	76.0	78.4	79.6	74.6	64.6	53.3	45.0	62.8
1880	44.9	47.2	50.0	56.3	65.2	73.3	78.7	76.2	72.9	65.9	52.7	51.6	61.2
1881	50.4	55.3	53.4	64.1	70.8	75.0	88.8	77.0	74.3	64.1	51.0	49.2	64.4
1882	46.1	45.4	52.7	61.0	72.3	74.7	79.9	76.4	72.5	60.8	50.9	48.9	61.8
1883	42.3	47.0	56.4	58.1	65.9	79.4	78.8	75.5	75.5	63.2	54.7	42.0	61.6
1884	46.5	45.6	54.2	56.1	66.5	69.3	79.2	80.1	72.1	68.6	59.0	51.1	62.4
1885	47.7	55.4	63.6	65.5	72.9	68.5	74.7	77.5	73.8	67.6	[55.2]	53.0	[64.6]
1886	48.1	55.3	57.1	61.5	70.8	78.4	80.2	78.6	71.7	55.5	53.3	51.1	63.5
1887	49.2	47.6	60.8	62.0	70.0	81.6	82.8	78.6	77.1	78.1	68.1	51.9	67.3
1888	43.2	46.1	48.1	51.7	62.5	67.3	73.4	76.1	74.6	68.8	58.3	50.1	60.0
1889	44.0	46.5	54.0	59 9	65.9	72.1	75.8	71.8	70.9	58.9	53.3	49.0	60.2
1890	41.2	45.6	50.9	59.4	63.8	70.7	......	......	......	......	......	......	......
Means	46.2	49.8	55.4	60.0	67.4	74.2	79.0	76.9	73.3	64.6	55.2	48.8	62.6

WRIGHT, CAMP, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1864	......	......	......	......	......	......	77.0	73.2	64.6	59.0	46.6	44.0	......
1865	41.4	42.7	47.6	54.5	66.5	72.0	75.9	73.1	61.6	58.6	50.7	37.5	56.8
1866	38.5	46.7	46.6	55.1	......	......	......	......	72.3	60.1	48.7	45.5	......
1867	[42.6]	41.6	43.9	55.0	64.9	68.6	75.7	78.6	67.4	57.2	51.5	46.6	[57.8]
1868	36.6	45.2	48.6	55.7	60.2	64.1	78.1	80.3	69.1	59.4	49.5	45.3	57.7
1869	42.1	45.4	53.0	57.3	63.3	77.7	79.7	72.9	69.6	58.6	50.5	41.0	59.3
1870	43.8	46.0	46.4	53.8	60.3	68.3	80.5	78.6	68.2	60.4	49.8	38.9	57.9
1871	43.1	42.6	49.0	54.4	57.8	73.4	76.6	79.4	67.6	60.1	46.5	44.6	57.9
1872	44.4	47.3	52.5	51.2	63.2	71.9	78.4	77.3	68.0	66.2	52.2	46.3	59.9
1873	48.9	45.1	54.7	55.8	62.1	67.2	78.7	75.6	73.5	60.2	56.4	43.6	60.2
1874	43.7	46.1	46.9	55.3	61.6	68.0	78.3	72.4	73.0	64.4	51.9	45.2	58.9
1875	43.6	51.3	48.5	62.5	60.8	......	......	......	......	......	......	......	......
Means	42.6	45.5	48.9	55.5	62.1	70.1	77.9	76.1	68.6	60.4	50.4	43.5	58.5

YUMA, FORT, CAL.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1850	......	......	......	......	......	......	......	......	......	......	......	51.7	......
1851	54.4	53.2	62.6	73.0	......	......	......	......	......	......	......	......	......
1852	......	......	......	......	......	87.0	88.6	88.1	83.6	72.9	61.5	55.5	......
1853	59.3	58.6	67.6	73.2	77.7	89.5	94.1	92.2	89.3	79.4	65.7	57.1	75.3
1854	54.2	59.2	64.5	74.7	74.1	85.4	94.0	90.6	85.5	77.2	66.0	59.5	73.7
1855	57.9	61.2	69.7	73.0	78.4	90.2	93.9	92.4	84.2	80.8	64.4	58.2	75.4
1856	55.0	61.5	69.6	74.1	79.0	93.1	96.0	93.4	87.5	71.8	60.2	49.8	74.2
1857	59.4	60.4	71.7	75.8	79.7	88.8	94.2	94.0	85.5	75.2	64.0	56.0	75.4

Mean monthly and annual temperature at stations in California—Continued.

YUMA, FORT, CAL.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1858	55.1	64.0	65.0	74.2	82.9	89.3	96.0	91.7	90.7	76.6	64.2	52.7	75.2
1859	55.6	63.0	62.8	68.2	78.8	93.0	92.8	91.7	85.6	78.2	64.2	54.3	74.0
1860	55.6	58.9	71.2	76.8	77.8	86.1	93.6	96.0	84.4	75.9	62.5	59.9	74.9
1861	54.6	62.0	70.1	78.6	83.3	90.8	98.6	93.4	88.6	75.0	63.7	62.4	76.8
1862	56.4	58.3	66.0	72.3	78.8	87.7	94.4	94.3	88.2	......	......	......	......
1866	......	......	65.6	76.0	......	......	......	......	87.3	......	67.8	60.0	......
1867	61.5	61.4	65.0	75.0	83.1	89.5	94.0	94.6	91.2	76.7	66.8	63.7	76.9
1868	52.9	60.1	65.5	75.6	78.0	87.9	93.0	91.6	86.8	77.5	68.4	61.2	74.9
1869	54.3	56.1	65.5	73.1	81.5	91.6	91.7	89.2	85.8	73.0	60.4	51.4	72.8
1870	55.3	57.6	62.3	71.3	79.2	90.5	95.5	91.0	87.1	67.2	60.7	53.3	72.6
1871	59.8	58.8	67.3	71.8	81.4	92.1	96.1	96.6	90.7	77.5	63.0	61.6	76.4
1872	57.3	63.0	64.9	68.1	82.3	88.3	91.5	90.0	82.9	75.0	60.4	57.9	73.5
1873	57.8	55.4	69.3	70.5	77.4	87.9	93.6	88.2	81.8	72.9	66.1	53.2	73.1
1874	56.1	53.5	59.3	69.2	80.0	88.7	92.1	90.4	86.0	74.4	62.2	55.3	72.3
1875	53.9	59.0	61.4	70.7	81.3	87.6	92.9	93.1	85.2	82.1	61.8	60.4	74.4
1876	52.8	60.9	63.5	74.5	81.6	89.8	93.2	89.9	85.3	76.0	64.4	58.1	74.2
1877	58.0	63.3	70.4	69.6	73.4	87.0	97.3	94.7	87.0	74.5	63.1	55.4	74.5
1878	55.3	59.9	66.8	70.6	79.3	87.1	94.8	93.7	86.1	76.6	64.2	56.6	74.2
1879	55.2	66.7	73.9	[72.8]	80.7	88.7	96.3	96.0	91.6	76.5	63.1	55.6	[76.4]
1880	56.8	54.2	60.9	69.8	80.2	91.5	94.3	94.0	87.1	76.0	60.5	56.2	73.5
1881	51.7	62.8	66.6	75.2	81.3	88.5	95.5	94.8	90.6	71.9	60.2	[56.8]	[74.7]
1882	50.1	53.5	63.3	70.7	......	......	......	98.0	......	72.9	61.0	......	......
1883	50.7	56.7	69.2	......	......	......	......	......	......	......	......	......	......
Means	55.6	59.3	66.3	72.8	79.6	89.1	94.2	92.7	87.0	75.5	63.5	56.8	74.4

Appendix No. 37.

MEAN MONTHLY AND ANNUAL TEMPERATURE FOR THIRTY-SEVEN STATIONS IN NEVADA.

The prefatory note to Appendix No. 34 with reference to interpolated values applies also to the bracketed figures in the temperature tables.

AUSTIN, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	34.3	......	49.7	......	59.6	70.7	69.6	74.1	55.5	39.3	......	......
1889	24.2	31.8	42.4	......	53.4	......	73.7	71.7	......	......	42.5	31.8	......
1890	21.3	29.6	36.8	45.4	55.1	58.6	70.8	66.4	60.4	......	......	......	......
Means	22.8	31.9	39.6	47.6	54.2	59.1	71.7	69.2	67.2	55.5	40.9	31.8	49.3

BATTLE MOUNTAIN, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	34.6	31.4	53.9	61.2	73.2	80.9	74.0	63.1	49.1	45.8	26.0	......
1871	32.0	33.0	41.6	50.2	62.0	74.7	78.9	76.6	67.1	48.3	36.5	34.4	52.9
1872	31.5	40.3	42.2	44.7	62.1	75.4	81.2	74.7	59.5	52.3	35.6	27.3	52.2
1873	36.7	28.1	43.4	49.5	55.3	70.7	82.1	74.3	62.6	43.7	42.5	23.3	51.0
1874	29.5	24.7	33.9	47.2	63.6	70.6	83.9	73.7	65.3	53.5	41.6	28.8	51.4
1875	28.0	34.4	38.3	55.3	63.7	71.4	79.7	77.4	67.2	58.0	41.4	36.9	54.3
1876	28.2	35.4	38.0	49.5	57.3	72.8	76.0	71.3	64.3	50.3	34.6	25.6	50.3
1877	20.4	29.2	45.5	45.2	51.6	63.4	......	......	......	......	35.9	26.5	......
1878	28.9	32.5	42.4	46.8	54.7	69.8	75.6	76.3	58.8	46.0	37.7	23.4	49.4
1879	21.3	38.2	48.9	52.7	54.5	61.5	73.9	72.1	65.8	48.6	34.3	30.2	50.4
1880	31.1	28.4	[39.5]	49.6	56.6	66.0	75.2	73.5	62.6	45.9	26.0	30.3	[48.7]
1881	34.1	38.6	42.1	55.4	59.3	70.0	78.0	72.3	60.1	44.7	32.4	30.0	51.4
1882	19.9	19.8	33.2	44.4	57.5	66.4	81.2	75.4	61.0	54.6	33.4	31.7	48.2
1883	20.1	21.3	48.7	43.4	55.3	72.2	78.8	78.0	65.7	44.4	39.0	29.5	49.7
1884	26.9	21.0	40.1	45.7	61.9	66.2	74.3	76.6	58.8	46.9	38.2	34.2	49.2
1885	30.9	40.3	45.3	51.3	58.6	66.1	77.3	74.7	66.3	52.8	43.2	35.5	53.5
1886	31.6	40.3	38.4	47.2	63.3	69.2	76.3	75.1	57.2	42.9	26.7	33.7	50.2
1887	33.9	30.6	44.7	46.2	56.9	61.7	76.2	69.6	[63.0]	49.8	38.4	28.2	[49.9]
1888	19.2	38.7	41.1	54.1	57.3	64.1	75.8	76.2	65.4	49.0	38.7	33.8	51.1
1889	19.5	26.7	46.1	55.9	59.5	70.2	78.4	76.0	63.5	51.3	40.1	33.4	51.7
1890	18.0	33.9	44.2	55.2	......	69.6	83.3	75.3	66.5	......	......	......	......
Means	27.1	31.9	39.5	49.7	58.6	69.0	78.1	74.6	63.0	49.1	37.1	30.1	50.6

BEOWAWE, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	37.0	50.0	58.2	70.8	81.2	71.5	59.2	50.8	48.2	24.4	......
1871	32.3	[33.0]	41.9	46.7	56.8	67.5	77.2	70.4	61.8	48.5	34.6	33.1	[50.3]
1872	30.4	36.4	42.1	42.1	58.3	69.7	75.6	70.4	63.2	51.9	34.1	28.6	50.2
1873	35.6	32.3	46.0	44.8	53.7	65.6	74.8	69.1	62.2	43.5	42.8	26.7	49.8
1874	32.0	26.5	34.1	45.7	62.9	68.5	80.4	69.7	60.9	55.2	40.4	34.9	50.9
1875	26.3	32.5	34.4	52.7	61.8	68.2	77.3	74.4	65.4	54.2	39.4	36.8	52.0
1876	28.1	36.7	39.0	49.5	58.5	72.4	75.3	72.7	64.7	54.7	41.5	32.5	52.1
1877	25.8	33.4	48.5	46.1	53.1	72.6	......	......	......	......	37.8	30.0	......
1878	28.5	32.3	43.4	53.1	63.8	72.1	79.2	85.5	65.9	[47.0]	38.1	25.1	[52.8]
1879	24.3	40.0	54.6	52.9	54.8	66.7	78.8	70.9	52.4	44.9	30.9	25.5	49.7
1880	29.6	29.8	32.8	44.8	56.9	74.2	75.9	72.1	65.3	48.9	25.8	33.7	49.2
1881	36.2	39.1	45.5	58.8	64.7	72.2	76.6	72.8	61.8	45.6	31.3	32.6	53.1
1882	18.8	22.4	36.2	47.7	61.4	71.7	80.2	76.6	61.6	45.5	34.4	32.0	49.0
1883	15.4	20.5	48.2	45.6	56.5	71.7	77.8	74.9	67.0	43.5	38.0	29.3	49.0
1884	25.6	24.1	37.6	46.3	57.6	64.6	72.5	75.4	57.1	50.5	39.7	31.8	48.6
1885	30.0	39.4	47.2	52.1	59.5	64.3	78.2	73.9	63.0	53.9	43.7	36.1	53.4

Mean monthly and annual temperature at stations in Nevada—Continued.

BEOWAWE, NEV.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	31.7	42.7	38.5	49.4	65.5	72.1	79.7	78.2	66.5	48.4	29.3	35.5	53.1
1887	34.2	32.2	49.4	48.3	59.8	68.8	76.6	72.5	63.2	50.1	35.3	21.8	51.0
1888	16.8	37.3	40.3	57.4	62.0	68.9	80.3	80.4	74.3	53.5	38.2	33.6	53.6
1889	16.6	25.0	48.0	56.3	62.7	76.4	82.0	80.2	63.6	52.6	36.6	31.3	52.6
1890	11.1	28.0	40.5	52.4	64.9	67.7	82.2	75.5	67.9	......	......	......	......
Means	26.5	32.2	42.2	49.7	59.7	69.8	77.9	74.3	63.1	49.6	37.0	30.8	51.1

BROWNS, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	35.5	40.2	51.4	59.6	77.2	......	......	......	......	......	27.8	......
1871	32.5	36.3	[45.0]	56.1	65.8	77.8	81.8	76.5	70.8	55.8	40.3	42.1	[56.7]
1872	36.9	49.0	48.3	52.4	66.0	76.6	81.3	79.4	68.7	56.7	38.4	27.2	56.7
1873	39.6	31.5	49.7	53.0	60.5	83.7	89.1	79.8	69.0	52.9	45.5	26.8	56.8
1874	30.5	32.2	41.0	52.1	62.0	70.8	84.9	76.8	67.4	55.2	45.1	34.3	54.4
1875	34.2	38.7	43.6	57.8	66.3	73.6	82.1	78.6	72.0	61.7	46.5	37.4	57.7
1876	29.4	38.3	42.3	57.4	65.8	82.7	85.9	78.8	73.8	58.4	42.6	31.5	57.2
1877	24.3	30.4	51.7	53.9	62.6	75.5	......	......	......	......	42.0	32.9	......
1878	32.9	40.2	49.2	50.6	65.2	78.7	82.2	82.5	65.2	51.4	41.7	29.3	55.8
1879	28.3	43.1	52.8	57.7	60.8	73.7	83.2	81.2	72.7	52.4	37.8	31.3	56.2
1880	32.2	33.1	37.7	50.0	60.9	73.3	82.1	77.7	68.1	53.4	25.8	39.5	52.8
1881	37.2	43.9	47.1	62.2	66.7	74.2	79.4	77.5	64.6	49.0	36.3	34.2	56.0
1882	27.9	35.5	40.7	49.4	61.3	69.0	80.8	80.4	68.1	46.4	[33.5]	35.2	[52.4]
1883	29.2	24.8	48.6	46.8	[58.0]	79.6	86.5	81.6	74.4	52.0	43.5	33.5	[54.9]
1884	30.8	30.4	44.0	52.6	68.0	74.1	82.6	83.9	65.6	54.5	42.6	36.9	55.5
1885	34.0	43.2	51.4	58.8	68.2	74.5	86.2	81.3	70.5	58.0	45.6	39.8	59.3
1886	37.2	44.8	43.3	54.8	68.6	74.7	80.8	80.4	67.3	52.8	34.8	41.4	56.7
1887	37.9	33.4	51.7	54.6	65.0	74.4	82.7	76.7	66.5	55.7	42.0	[34.6]	[56.3]
1888	19.0	42.7	48.9	63.4	67.0	73.7	83.6	80.1	75.9	56.2	41.7	38.8	57.6
1889	26.7	38.7	49.5	60.9	71.3	82.6	85.2	79.8	69.7	55.2	43.5	38.1	60.1
1890	22.3	39.6	46.8	58.9	69.9	74.5	85.9	83.2	73.6	......	......	......	......
Means	31.1	37.4	46.4	55.0	64.7	75.9	83.4	79.6	69.5	54.3	40.5	34.6	56.1

CARLIN, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	30.2	40.0	47.5	58.0	73.5	78.6	65.9	46.0	40.3	37.0	18.2	......
1871	26.1	27.2	38.4	47.3	54.7	70.2	76.4	74.1	63.3	39.8	28.1	23.6	47.4
1872	24.1	35.9	41.9	46.1	57.7	[64.2]	70.5	65.3	53.3	44.9	21.9	14.4	[45.0]
1873	31.7	23.8	41.1	47.3	49.5	65.5	78.5	66.6	53.4	36.6	38.2	16.2	45.7
1874	24.5	17.5	24.2	46.2	54.3	62.0	72.1	63.8	49.4	43.9	35.5	24.6	43.2
1875	20.7	23.1	28.2	45.8	56.1	59.9	70.5	69.6	61.0	49.9	33.2	26.3	45.4
1876	15.6	23.1	28.8	40.8	46.8	67.6	69.4	62.8	58.0	46.1	31.0	22.2	42.9
1877	18.2	24.9	42.0	41.1	48.2	62.5	......	......	......	......	32.2	24.2	......
1878	24.4	29.9	38.9	44.9	52.2	67.4	71.6	73.2	55.4	40.5	32.7	16.7	45.6
1879	18.1	34.3	41.7	47.8	50.4	60.4	69.1	71.5	61.1	43.7	28.7	24.0	45.9
1880	23.9	[24.3]	29.8	41.5	50.9	64.2	72.3	67.1	58.5	43.4	19.8	28.8	[43.7]
1881	31.1	33.7	38.0	52.4	54.8	66.4	77.9	66.3	55.3	41.1	28.9	24.8	47.6
1882	13.3	17.6	29.6	41.1	54.2	65.4	81.8	72.9	58.1	40.6	50.3	26.4	45.9
1883	12.3	20.7	42.7	41.6	52.0	67.0	74.2	68.9	60.9	39.8	31.5	25.0	44.7
1884	17.9	17.9	34.2	42.5	55.4	62.9	68.1	68.3	51.9	45.6	33.2	26.8	43.7
1885	24.6	33.9	40.6	46.9	54.4	60.6	72.1	72.6	59.5	46.0	40.8	33.3	48.8
1886	29.7	38.6	36.9	46.3	60.1	67.5	74.8	75.0	57.8	45.4	31.1	34.7	49.8
1887	34.4	29.8	44.8	46.1	59.0	66.8	74.3	72.0	60.0	45.7	33.4	20.1	48.9
1888	10.6	29.8	38.0	53.6	61.3	68.2	79.7	72.5	69.7	51.2	34.5	23.5	49.4
1889	10.7	21.5	40.7	52.0	59.9	74.6	77.8	72.4	58.3	48.6	33.8	31.4	48.5
1890	8.8	23.2	34.6	54.2	58.8	59.8	78.1	69.9	......	......	......	......	......
Means	21.0	26.7	36.9	46.3	54.7	65.6	74.2	69.5	57.4	43.8	32.9	24.3	46.1

CARSON CITY, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	32.3	36.4	39.9	52.5	60.4	64.8	73.7	70.7	62.3	55.1	41.9	36.7	52.2
1876	23.2	33.1	38.0	47.0	54.8	69.9	70.1	63.8	60.7	50.9	39.9	29.7	48.4
1877	28.8	38.2	50.1	45.6	......	......	......	......	......	......	......	......	......

***Mean monthly and annual temperature at stations in Nevada*—Continued.**

CARSON CITY, NEV.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	......	72.4	......	......	......	......	......
1879	......	......	......	......	......	......	......	71.7	64.5	48.1	37.0	32.3	......
1880	32.4	30.5	33.5	43.1	54.3	64.2	71.8	67.3	60.8	48.8	32.4	36.4	48.0
1881	37.0	42.1	42.9	56.1	59.6	65.0	70.3	66.5	59.0	46.5	31.4	34.8	50.9
1882	28.4	29.3	33.6	45.9	55.9	64.8	72.5	70.3	60.1	45.9	34.7	36.4	48.2
1883	26.7	23.9	46.0	45.3	54.2	69.9	73.2	69.5	62.8	44.0	36.6	32.5	48.7
1884	30.2	26.2	38.8	46.1	57.5	61.2	69.6	68.0	55.8	48.6	38.7	34.6	47.9
1885	35.5	41.8	47.2	50.0	58.8	61.6	72.3	70.9	62.0	52.1	42.2	39.1	52.8
1886	34.6	42.2	38.7	47.5	59.6	67.3	70.9	72.1	59.0	46.2	32.7	40.8	51.0
1887	36.5	27.5	46.4	48.1	58.7	65.4	71.5	67.2	59.0	49.2	40.2	31.2	50.1
1888	26.7	38.6	40.6	53.3	56.7	61.0	70.6	69.4	65.1	51.7	38.4	36.6	50.7
1889	28.7	34.9	44.1	53.0	57.9	69.8	73.1	71.4	60.8	48.0	38.2	31.4	50.9
1890	18.9	......	39.7	49.8	58.4	62.3	71.9	68.1	61.1	......	......	......	......
Means	30.0	34.2	41.4	48.8	57.4	65.2	71.6	69.4	60.9	48.9	37.3	34.8	50.0

CEDAR PASS, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	......	36.0	48.8	55.2	70.5	77.2	......	......	......	......	36.0	......
1871	28.2	27.7	31.7	40.4	53.6	[65.0]	71.7	68.1	62.1	42.3	35.4	26.1	[46.0]
1872	26.7	32.1	34.1	36.2	51.3	64.2	73.8	69.1	54.3	48.3	26.9	29.6	45.6
1873	30.2	21.6	36.7	36.8	43.1	66.6	74.5	70.8	60.3	43.9	38.2	21.1	45.3
1874	24.1	19.7	27.1	39.5	50.3	58.4	73.9	66.9	58.5	49.8	34.3	26.2	44.1
1875	18.8	26.2	25.0	40.7	51.2	62.4	75.3	74.1	70.1	52.9	31.5	29.1	46.4
1876	19.4	25.5	30.4	38.4	46.5	65.5	68.6	62.9	58.6	48.7	33.1	26.8	43.7
1877	21.1	27.7	39.8	40.1	46.8	57.8	......	......	......	......	30.1	30.3	......
1878	21.2	31.4	38.4	44.2	......	......	......	......	......	......	......	......	......
Means	23.7	26.5	33.2	40.6	49.8	63.8	73.6	68.6	60.6	47.6	32.8	28.2	45.8

CHURCHILL, FORT, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	......	......	......	......	......	......	......	......	......	49.2	41.7	31.3	......
1861	27.8	38.4	47.0	53.9	58.5	68.7	82.0	76.2	68.0	51.9	44.1	42.7	54.9
1862	29.9	31.5	43.2	48.9	55.9	67.4	75.9	74.2	67.8	55.2	40.9	31.8	51.9
1863	34.0	37.7	43.9	[52.6]	65.3	73.7	79.8	74.1	68.3	48.9	39.1	38.8	[54.7]
1864	38.5	41.5	[43.8]	55.5	59.9	76.5	[78.4]	74.4	66.0	54.5	41.4	38.9	[55.8]
1865	32.7	34.2	44.5	50.1	68.5	71.7	75.2	78.1	[67.6]	55.2	48.1	27.9	[54.5]
1866	32.5	41.7	47.0	53.3	......	......	......	......	69.8	55.2	45.1	39.2	......
1867	36.1	[35.6]	36.3	53.4	62.6	72.0	78.6	79.4	68.2	53.5	44.8	40.0	[55.0]
1868	22.9	25.6	42.7	[52.6]	54.0	65.2	78.8	78.4	65.2	53.4	37.0	33.3	[50.8]
1869	34.1	34.0	46.1	52.8	63.0	......	......	......	......	......	......	......	......
Means	32.1	35.6	43.8	52.6	61.0	70.7	78.4	76.4	67.6	53.0	42.5	36.0	54.1

DAYTON, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	42.4	43.6	57.1	58.0	......	......	......	68.1	54.5	41.8	37.0	......
1889	28.2	38.6	46.6	57.0	61.8	......	......	......	......	......	......	......	......
Means	28.2	40.5	45.1	57.0	59.9	......	......	......	68.1	54.5	41.8	37.0	......

EL DORADO CANYON, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	92.7	92.4	91.4	76.2	60.8	53.6	......
1889	48.5	55.2	64.6	75.8	83.1	91.6	96.9	95.5	84.4	73.4	60.0	55.7	73.7
1890	47.3	55.8	61.6	70.6	80.1	84.5	96.0	91.4	85.7	......	......	......	......
Means	47.9	55.5	63.1	73.2	81.6	88.0	95.2	93.1	87.2	74.8	60.4	54.6	72.9

***Mean monthly and annual temperature at stations in Nevada*—Continued.**

ELKO, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	28.6	33.6	58.6	54.9	68.1	76.6	68.5	56.4	46.1	34.4	20.7	....
1871	25.1	29.4	35.2	43.9	57.0	68.3	75.0	71.9	61.3	41.4	32.1	25.9	47.2
1872	27.7	34.6	37.1	40.4	56.7	66.2	72.0	70.4	55.1	45.9	25.1	26.4	46.5
1873	30.9	22.9	35.3	41.7	49.6	66.4	77.3	72.7	61.4	40.6	45.3	17.1	46.8
1874	20.6	16.5	26.7	41.8	58.1	65.1	77.9	67.9	56.8	48.2	35.8	23.3	44.9
1875	21.5	22.6	30.8	47.4	57.8	68.2	75.8	73.0	61.8	50.4	33.9	30.3	47.8
1876	21.7	25.7	32.0	45.0	54.4	71.9	73.3	69.5	58.9	48.0	33.8	22.5	46.4
1877	21.2	26.6	43.1	41.1	50.0	65.9	......	......	......	......	32.2	24.5	....
1878	26.8	[30.0]	41.2	47.6	55.8	71.6	75.5	76.8	57.8	42.4	34.1	21.1	[48.4]
1879	17.9	34.1	43.2	51.8	55.7	61.8	70.7	69.0	50.1	41.2	28.5	25.2	45.8
1880	23.5	[24.8]	27.1	34.6	50.0	60.7	[73.2]	[69.0]	53.9	40.5	19.3	31.4	[42.3]
1881	30.4	34.0	36.8	52.0	58.1	69.4	73.0	67.8	55.4	40.0	28.1	25.4	47.5
1882	15.8	18.0	30.1	42.7	55.8	68.1	74.2	72.8	56.7	44.4	29.2	26.4	44.5
1883	14.8	18.5	30.0	40.5	54.6	72.0	76.3	71.5	62.0	40.9	33.1	26.3	45.0
1884	20.6	18.0	35.3	45.6	58.1	65.8	71.0	68.6	51.5	44.0	31.7	29.3	45.0
1885	27.4	35.4	39.2	43.2	55.8	59.8	69.9	68.3	60.1	47.0	38.8	31.7	48.0
1886	27.9	38.9	38.1	50.5	65.2	73.1	79.9	77.2	59.2	43.6	34.2	32.3	51.7
1887	30.0	26.5	41.9	46.5	60.0	71.5	80.6	71.6	59.6	44.7	26.7	21.5	48.4
1888	15.3	35.9	38.9	38.5	65.4	71.5	81.8	[74.0]	70.2	54.6	38.6	31.6	[51.4]
1889	16.8	24.7	41.5	50.9	59.1	69.8	73.3	70.0	53.7	46.1	35.6	31.0	47.7
1890	......	24.7	36.9	46.3	57.2	59.5	74.0	71.6	60.6	......	......	......	....
Means	22.9	27.2	35.9	45.4	56.6	67.4	75.1	71.1	58.0	44.7	32.0	26.2	46.9

ELY, NEV.

1888	......	33.6	33.2	49.1	52.4	64.5	69.4	67.1	63.3	......	35.7	......	....
1889	22.3	29.4	41.6	50.0	55.5	65.5	74.0	62.0	54.2	47.4	38.6	32.6	47.8
1890	19.0	......	38.2	42.6	55.4	59.2	70.8	61.0	52.0	......	......	......	....
Means	20.6	31.5	37.7	47.2	54.4	63.1	71.4	64.0	56.5	47.4	37.2	32.6	47.0

EUREKA, NEV.

1880	34.6	......	......	39.1	......	......	......	......	......	......	......	......	....
1888	......	......	......	49.7	54.8	67.4	77.4	77.2	72.7	53.4	39.2	36.0	....
1889	19.9	27.6	41.7	50.0	56.0	68.1	74.5	73.6	58.9	50.0	38.3	31.4	49.2
1890	18.2	26.4	35.8	46.4	56.2	60.1	74.0	......	......	......	......	......	....
Means	24.2	27.0	38.8	46.3	55.7	65.2	75.3	75.4	65.8	51.7	38.8	33.7	49.8

FENELON, NEV.

1888	13.2	32.5	36.8	59.4	65.5	73.7	82.1	82.2	71.3	54.6	[35.0]	26.5	[52.7]
1889	14.3	25.9	45.6	56.0	63.9	75.0	79.3	76.1	64.0	53.7	37.9	27.0	51.6
1890	16.5	28.8	36.5	......	61.5	65.9	84.3	82.7	65.3	......	......	......	....
Means	14.7	29.1	39.6	57.7	63.6	71.5	81.9	80.3	66.9	54.2	36.4	26.8	51.9

GENOA, NEV.

1888	......	40.5	40.4	......	......	60.7	......	70.0	66.8	55.0	40.2	37.8	....
1889	30.2	37.2	45.0	[53.0]	55.0	65.2	69.6	69.5	62.1	49.4	39.9	31.0	[50.6]
1890	20.2	32.4	39.2	49.5	56.4	59.5	68.6	65.6	61.2	......	......	......	....
Means	25.2	36.7	41.5	51.2	55.7	61.8	69.1	68.4	63.4	52.2	40.0	34.4	50.0

Mean monthly and annual temperature at stations in Nevada—Continued.

GOLCONDA, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	59.8	75.6	80.1	79.6	59.0	47.7	42.6	30.2	......
1879	24.5	32.1	41.5	54.4	55.3	65.7	76.0	76.9	70.8	53.0	34.6	33.2	51.5
1880	35.7	[40.0]	37.9	48.6	56.0	68.2	79.1	72.5	65.1	52.5	31.5	36.2	[51.9]
1881	40.0	43.6	45.9	57.9	62.9	72.0	77.0	71.6	63.5	[52.0]	41.0	41.6	[55.8]
1882	31.1	28.9	37.7	49.8	61.0	72.3	81.6	79.6	63.1	48.6	39.7	37.4	52.6
1883	26.4	28.6	50.4	44.9	55.3	71.5	78.8	79.4	72.6	49.5	47.2	37.4	53.5
1884	31.6	30.2	44.0	53.2	64.7	[75.0]	76.5	81.7	63.9	58.9	47.3	40.1	[55.6]
1885	39.1	47.2	54.2	60.4	67.2	70.2	81.2	81.4	72.0	62.3	18.9	45.9	60.8
1886	39.7	48.1	45.0	55.3	68.1	76.5	82.3	83.4	72.0	55.5	41.0	42.4	59.1
1887	43.5	37.2	52.1	53.5	66.9	71.8	81.4	78.7	67.3	58.9	49.3	39.7	58.4
1888	25.3	43.4	50.5	61.3	69.7	73.8	79.0	78.8	76.0	56.1	51.8	43.0	59.1
1889	26.9	38.1	46.8	57.0	63.1	77.8	82.1	79.1	65.5	56.2	44.6	35.4	56.0
1890	16.5	32.8	41.5	45.9	62.3	69.0	85.0	73.8	63.6	......	......	......	......
Means	31.7	37.5	45.6	53.5	62.5	72.3	79.6	78.6	67.6	54.3	43.3	38.5	55.4

HALLECK, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[21.0]	29.6	29.6	44.3	52.3	64.1	72.9	63.0	52.4	44.3	38.4	22.2	[44.5]
1871	24.9	31.4	36.4	43.3	58.8	69.5	74.1	68.3	63.7	57.1	33.3	32.1	49.4
1872	26.3	37.9	43.2	44.4	60.1	63.6	71.5	66.8	54.7	38.1	8.9	14.3	41.2
1873	[28.0]	13.6	21.2	39.2	52.5	65.5	72.6	67.6	45.2	30.6	36.4	14.6	[40.6]
1874	18.2	15.1	30.2	43.2	61.2	68.1	72.9	[70.4]	46.9	41.9	24.7	19.3	[42.7]
1875	12.3	9.0	......	52.1	58.4	......	74.8	71.8	64.4	56.5	......	28.4	......
1876	19.3	27.2	45.1	52.5	66.1	64.2	72.8	[71.0]	61.9	51.1	37.1	27.4	[49.6]
1877	22.3	28.7	41.7	45.1	48.8	63.0	......	......	......	......	38.3	30.6	......
1878	24.6	30.8	[37.1]	47.4	55.5	68.0	70.9	72.1	56.0	44.8	35.4	21.7	[47.0]
1879	20.5	31.0	45.0	50.4	55.6	63.4	76.2	73.5	61.1	46.7	37.8	25.4	49.1
1880	25.5	[26.5]	30.0	42.2	51.3	[65.9]	71.8	69.4	54.7	43.6	25.6	31.7	[44.8]
1881	36.9	35.5	39.2	52.1	57.9	63.8	76.2	69.8	58.3	37.3	25.4	21.2	47.8
1882	12.7	17.2	28.4	41.3	55.9	68.4	71.4	71.7	54.1	41.2	27.7	37.4	44.2
1883	13.5	18.0	39.4	41.8	54.9	[65.9]	[73.6]	75.0	68.3	41.2	33.9	22.8	[45.7]
1884	15.7	17.9	38.1	43.8	53.1	58.0	66.1	62.5	[52.0]	51.4	24.8	28.1	[42.6]
1885	26.0	41.3	46.2	50.2	60.0	70.1	73.9	76.3	63.2	46.1	42.0	31.4	52.2
1886	24.8	36.6	33.1	44.2	59.9	65.4	73.3	71.6	58.3	43.1	25.5	33.7	47.5
1887	32.4	24.3	[40.0]	50.8	63.5	69.9	76.2	73.3	61.2	46.2	25.3	15.5	[48.2]
1888	8.5	35.3	37.5	51.4	56.3	65.1	75.0	[73.0]	67.0	49.4	35.1	29.1	[48.6]
1889	15.2	24.3	43.7	54.1	58.6	71.9	77.8	71.8	57.0	50.2	34.0	27.7	48.9
1890	13.4	22.1	36.6	50.2	59.2	63.9	75.4	69.8	55.9	......	......	......	......
Means	21.0	26.5	37.1	46.9	57.1	65.9	73.6	70.4	57.8	45.3	31.1	25.7	46.5

HALLECK, CAMP, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1862	......	......	......	......	......	......	......	......	......	49.5	35.5	26.6	......
1863	......	......	......	......	54.9	62.6	......	68.0	56.1	41.8	24.6	25.3	......
1864	19.1	29.9	27.2	38.0	50.3	......	......	......	......	......	27.9	21.9	......
1865	17.8	......	......	......	......	......	59.8	......	......	......	......	......	......
1866	......	......	......	......	45.0	......	......	......	......	......	......	......	......
1867	......	......	......	......	......	......	......	......	......	44.1	36.8	34.3	......
1868	13.7	21.9	36.3	46.1	49.8	58.4	68.0	68.9	59.6	50.8	34.9	29.3	44.8
1869	29.1	29.1	39.9	43.4	54.8	69.5	......	......	......	......	......	23.9	......
1870	21.2	34.6	......	......	......	......	70.5	69.0	56.0	46.0	38.3	24.5	......
1871	27.7	29.7	35.8	42.4	55.6	65.5	71.5	70.2	62.7	43.6	31.8	28.6	47.1
1872	25.6	31.4	35.5	39.4	52.9	61.4	70.8	69.1	57.9	48.2	32.1	28.6	46.1
1873	28.0	22.8	30.4	41.4	47.2	65.6	69.6	69.3	57.9	44.5	40.4	21.5	44.9
1874	24.7	21.4	29.4	39.7	54.6	60.8	73.0	68.1	58.7	49.0	37.1	27.3	45.3
1875	25.9	26.6	29.6	46.1	53.6	63.7	72.2	68.6	65.0	51.7	35.5	32.1	47.6
1876	21.8	28.3	30.7	40.7	53.1	63.7	69.2	70.3	60.6	45.6	[36.0]	32.8	[46.1]
1877	26.2	32.0	45.2	41.8	[50.0]	63.3	79.0	69.8	60.3	44.7	36.2	29.4	[48.2]
1878	26.3	30.4	41.8	46.7	......	......	......	......	......	......	......	25.3	......
1879	26.4	[28.8]	45.5	51.8	55.4	63.7	80.4	79.2	63.1	47.3	[34.4]	24.5	[50.0]
1886	32.3	36.2	32.8	42.8	57.2	62.4	69.7	70.9	58.8	42.6	[34.4]	[27.2]	[47.3]
Means	24.4	28.8	35.4	43.1	52.5	63.4	71.1	70.1	59.7	46.4	34.4	27.2	46.4

***Mean monthly and annual temperature at stations in Nevada*—Continued.**

HAWTHORNE, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	30.0	44.6	45.7	56.1	65.2	73.3	79.0	79.3	73.2	57.5	43.7	42.5	57.5
1889	33.6	39.3	50.4	57.2	63.9	80.2	84.5	80.0	63.8	54.9	45.5	42.3	58.0
1890	33.8	40.8	49.5	58.6	68.0	71.1	84.2	80.6	73.6	......	......	......	......
Means	32.5	41.6	48.5	57.3	65.7	74.9	82.6	80.0	70.2	56.2	44.6	42.4	58.0

HOT SPRINGS, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[29.3]	35.4	41.0	52.3	59.5	72.6	83.6	78.2	63.6	47.8	40.0	26.0	[52.4]
1871	30.4	32.9	44.1	51.6	62.3	75.4	80.0	78.9	67.5	48.6	36.5	36.7	53.7
1872	33.9	41.4	44.9	45.8	63.7	75.6	81.6	78.6	66.8	58.9	35.6	30.1	54.7
1873	35.8	33.4	46.6	51.6	[58.7]	75.7	85.7	72.6	66.6	53.0	48.7	27.9	[54.7]
1874	33.8	35.2	41.2	59.8	69.1	83.0	83.4	72.0	57.4	43.6	[45.0]	31.3	[54.6]
1875	30.6	36.8	41.4	57.5	64.9	71.3	84.1	77.3	70.4	62.5	42.1	31.0	55.8
1876	31.6	38.4	41.6	51.9	62.0	76.7	82.4	73.4	66.0	53.9	48.4	30.4	54.7
1877	29.8	35.4	51.9	53.9	54.9	73.2	......	......	......	......	40.6	28.6	......
1878	31.0	38.1	47.2	52.6	63.9	75.9	79.3	81.8	65.9	49.5	40.3	25.8	54.3
1879	24.7	41.0	49.2	56.2	58.3	71.8	82.8	[77.0]	71.8	52.6	38.0	29.0	[54.4]
1880	28.7	31.5	35.9	47.3	58.3	73.3	82.5	77.8	68.1	50.5	31.2	36.3	51.8
1881	35.7	41.2	46.8	61.6	62.2	70.9	77.0	73.3	63.5	46.5	31.6	[29.5]	[53.3]
1882	24.8	30.5	40.0	46.1	57.0	65.6	73.0	74.8	64.6	47.9	37.4	34.5	49.7
1883	24.9	22.1	48.8	47.3	[55.0]	72.8	74.0	71.2	63.5	44.5	45.2	27.3	[49.7]
1884	28.9	26.5	40.5	48.9	65.2	60.7	67.1	72.6	54.0	49.5	41.2	34.0	49.1
1885	36.1	43.9	51.6	55.1	62.8	69.8	76.7	78.5	68.2	53.8	45.4	41.8	57.0
1886	33.1	42.4	43.1	49.5	61.8	71.3	80.5	77.5	67.2	49.8	33.0	36.0	[53.8]
1887	35.6	29.2	43.9	49.3	70.2	68.1	75.3	73.8	59.8	47.4	40.3	38.2	52.6
1888	11.5	35.8	41.2	54.7	57.6	66.7	78.7	79.1	71.8	57.2	41.8	31.1	52.5
1889	23.6	34.2	42.8	60.8	63.3	75.2	81.5	77.9	62.4	51.3	37.4	34.7	53.8
1890	17.6	29.8	36.0	47.3	58.3	62.1	81.8	......	69.2	......	......	......	......
Means	29.3	35.1	43.8	52.4	61.4	71.8	79.4	76.1	65.2	51.0	40.0	32.0	53.1

HUMBOLDT, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	48.5	48.6	58.1	65.8	......	......	......	......	53.9	53.2	39.0	......
1871	38.0	37.4	50.0	53.7	58.4	72.2	75.1	73.9	64.6	45.5	38.4	34.1	53.4
1872	31.7	39.7	43.3	43.3	58.4	67.9	74.9	73.1	59.0	53.7	36.8	32.5	51.2
1873	38.3	31.7	33.2	46.3	50.0	63.9	75.4	73.8	64.3	46.3	43.9	25.1	49.4
1874	32.6	30.7	36.7	48.4	58.9	57.0	73.6	[70.0]	64.6	52.5	40.6	32.5	[49.8]
1875	32.1	36.6	41.7	55.2	64.3	70.6	81.3	79.6	69.9	62.1	44.6	38.5	56.4
1876	31.0	41.3	42.2	51.6	58.3	74.7	76.6	73.5	62.2	50.5	42.5	32.2	53.0
1877	24.3	35.5	49.4	47.9	55.4	68.4	......	......	......	......	40.3	31.4	......
1878	32.2	37.1	45.4	50.4	59.3	73.4	75.8	77.8	62.4	50.0	41.2	29.2	52.8
1879	28.1	42.9	48.5	54.5	54.7	66.5	77.8	76.9	66.7	49.7	36.2	30.7	52.8
1880	34.2	31.2	34.6	45.3	54.9	64.3	78.8	70.4	64.8	50.7	30.5	38.0	49.8
1881	35.0	40.6	43.7	53.8	61.3	68.5	72.8	70.3	61.3	48.9	37.0	30.8	52.0
1882	25.2	26.9	36.2	43.8	56.8	61.6	77.6	73.9	58.8	47.1	34.1	32.7	47.9
1883	21.0	25.1	46.2	45.0	55.5	69.1	77.0	73.5	62.1	40.3	35.1	27.8	48.4
1884	28.2	25.9	40.4	48.8	60.4	67.8	68.9	[81.0]	51.7	38.1	35.9	35.3	[48.5]
1885	33.8	40.6	40.2	52.7	62.8	66.0	73.4	72.1	66.3	52.3	45.9	40.8	53.9
1886	36.5	[39.0]	41.7	49.4	59.6	64.6	72.3	68.2	61.3	50.8	35.7	40.9	[51.7]
1887	36.3	31.4	50.3	55.1	59.4	63.2	72.6	71.2	62.3	52.3	41.5	27.2	51.9
1888	25.0	40.8	43.2	49.6	52.9	60.5	66.9	[69.0]	61.7	51.5	39.4	34.5	[49.6]
1889	24.4	34.2	48.5	54.3	56.9	71.5	75.7	72.0	62.1	50.9	39.7	33.6	52.0
1890	17.4	29.3	38.4	50.0	59.1	62.8	71.4	66.6	65.8	......	......	......	......
Means	30.4	35.5	43.0	50.3	58.2	66.7	74.8	73.3	62.6	49.8	39.6	33.3	51.5

McDERMIT, CAMP, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1865	......	......	......	......	......	......	......	......	......	......	......	22.1	......
1866	30.3	35.2	39.9	44.1	......	......	......	......	62.5	49.6	41.4	34.3	......
1867	32.1	30.9	26.4	44.6	54.3	62.4	68.8	74.8	64.1	46.7	41.9	35.7	48.6
1868	15.3	23.9	38.3	46.4	50.2	58.5e	71.6	72.8	61.5	52.5	39.8	33.8	47.0
1869	31.1	31.2	41.4	46.3	59.1	70.2	75.0	71.2	61.4	51.5	38.6	25.5	50.2
1870	29.1	35.0	34.3	49.5	55.1	66.1	76.7	71.6	61.2	49.1	40.2	24.1	49.3

Mean monthly and annual temperature at stations in Nevada—Continued.

MCDERMIT, CAMP, NEV.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	30.5	30.5	35.2	45.1	55.6	71.2	74.9	74.6	63.7	48.6	34.1	34.7	49.9
1872	30.4	36.8	39.7	40.8	55.9	65.7	73.5	72.2	58.3	52.7	31.3	33.0	49.2
1873	36.0	28.9	41.9	42.4	49.5	63.4	75.5	70.9	63.5	47.0	43.5	[23.0]	[48.8]
1874	......	......	......	......	......	......	......	......	......	......	......	30.1	......
1875	17.7	18.9	30.2	46.3	60.4	60.1	73.8	69.9	61.7	53.8	39.5	37.0	47.4
1876	26.6	33.2	35.5	44.7	53.9	67.7	71.8	69.3	64.8	51.4	39.8	31.5	49.2
1877	25.4	37.4	44.0	43.5	50.6	62.1	72.6	71.8	61.4	48.5	36.5	33.2	48.9
1878	31.3	32.8	42.4	47.4	52.9	69.9	74.1	77.5	61.3	48.4	42.2	28.8	50.8
1879	26.3	38.8	43.8	47.7	49.0	61.4	74.2	76.3	69.6	50.9	36.5	29.2	50.3
1880	31.7	28.2	31.9	42.7	50.8	64.1	74.5	70.5	64.2	52.0	32.2	33.2	48.0
1881	29.0	36.2	40.5	59.6	64.4	70.6	83.1	69.0	47.8	36.6	27.5	31.3	49.6
1882	20.4	24.8	32.2	42.4	54.9	67.1	78.4	76.9	63.8	44.7	36.2	35.4	48.1
1883	32.2	26.5	50.5	43.1	55.9	72.0	82.5	77.1	69.2	44.3	38.2	31.6	51.9
1884	23.8	22.0	32.5	39.5	46.1	[63.0]	65.4	70.6	51.4	46.3	41.2	29.1	[44.2]
1885	27.6	35.8	44.3	48.2	55.1	59.3	72.6	72.9	62.2	55.2	38.7	34.6	50.5
1886	28.9	39.5	35.2	42.5	57.3	65.2	73.3	73.4	60.6	47.4	31.6	37.4	49.4
1887	31.1	25.3	43.3	43.5	53.3	61.3	73.4	68.1	57.8	50.6	39.4	27.7	47.8
1888	19.7	37.0	37.9	54.2	57.0	61.7	74.1	72.3	70.4	52.7	39.2	35.6	51.0
1889	25.7	35.8	45.8	52.2	55.3	......	......	......	......	......	......	......	......
Means	27.5	31.5	38.6	45.9	54.3	64.9	74.3	72.6	61.9	49.1	37.7	31.3	49.1

MCGARRY, CAMP, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1865	......	......	......	......	......	......	......	......	......	......	40.1	18.7	......
1866	27.5	31.2	33.6	39.5	45.4	54.4	[63.8]	[66.2]	61.4	53.3	41.0	29.8	[45.6]
1867	28.4	28.0	19.8	39.4	50.2	57.7	64.0	67.5	54.5	41.9	36.3	30.8	43.2
1868	9.6	22.6	29.6	39.5	44.6	51.0	63.5	64.9	54 1	47.5	34.6	[26.4]	[40.7]
Means	21.8	27.3	27.7	39.5	46.7	54.4	63.8	66.2	56.7	47.6	38.0	26.4	43.0

MILL CITY, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	[24.0]	41.4	41.6	54.8	59.2	68.6	79.0	79.3	[61.0]	53.5	42.6	26.3	[52.9]
1889	23.5	38.0	49.8	59.2	58.3	[78.0]	79.0	71.6	56.2	54.0	38.7	34.0	[53.4]
1890	26.0	......	41.1	......	......	......	77.7	77.6	67.3	......	......	......	......
Means	24.3	39.7	44.2	57.0	58.8	73.3	78.6	76.2	62.5	53.8	40.6	30.2	53.3

OTEGO, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	......	33.6	27.5	......
1878	25.1	27.8	37.8	42.4	48.2	64.2	71.6	74.8	56.3	44.4	37.2	22.4	46.0
1879	20.7	33.3	41.7	46.7	47.8	56.9	67.9	66.8	60.9	43.1	22.4	[27.0]	[44.6]
1880	24.7	22.5	27.5	39.9	47.0	63.5	70.7	68.0	57.8	44.4	24.6	29.2	43.3
1881	27.3	32.0	37.2	50.3	60.4	70.2	70.6	69.4	57.1	44.2	30.3	27.4	48.0
1882	16.9	18.8	30.1	39.8	52.6	62.3	72.8	73.5	60.0	39.1	32.9	30.2	44.1
1883	21.8	24.0	45.1	51.7	54.6	72.7	78.7	76.3	67.5	42.2	31.4	25.2	49.3
1884	19.6	19.3	33.0	44.9	54.9	64.9	72.5	72.9	58.8	45.2	37.9	25.4	45.8
1886	21.5	32.1	27.2	39.1	54.6	65.5	71.5	70.6	53.3	38.5	23.0	28.1	43.8
1887	22.3	20.3	35.7	40.4	55.5j	......	74.7	72.9d	......	......	......	......	......
Means	22.2	25.6	35.0	43.9	52.8	65.0	72.3	71.7	59.0	42.6	30.4	26.9	45.6

PALISADE, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	78.6	78.7	58.9	42.5	36.6	26.0	......
1879	23.1	36.8	46.6	48.6	54.9	60.9	62.2	64.8	53.9	41.1	28.9	25.7	45.6
1880	26.3	25.5	29.1	42.0	51.1	60.8	66.5	59.7	50.7	40.4	23.2	32.0	42.3
1881	32.5	34.7	36.1	46.6	54.8	73.6	76.0	70.4	61.8	40.4	31.3	29.2	49.0

Mean monthly and annual temperature at stations in Nevada—Continued.

PALISADE, NEV.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	19.9	26.6	34.2	46.5	59.0	[68.4]	76.6	73.8	59.6	47.2	27.8	29.3	[47.4]
1883	19.4	26.4	45.1	46.2	58.9	72.8	77.1	71.3	60.5	42.4	30.4	[30.0]	[48.4]
1884	24.6	20.0	38.2	47.2	63.3	72.9	77.8	73.9	55.4	41.4	29.1	28.0	47.6
1885	23.8	37.2	41.9	52.2	58.6	62.8	76.4	74.4	62.0	51.3	40.6	31.4	51.0
1888	12.6	35.1	39.8	58.5	70.3	76.7	75.9	80.0	71.8	48.0	36.3	31.2	53.0
1889	13.7	26.9	45.2	57.1	57.6	73.7	77.8	76.5	62.5	52.4	38.9	34.5	51.4
1890	15 7	29.3	35.6	48.5	60.6	62.9	77.8	70.6	62.3	......	......	......	......
Means	21.2	29.8	39.2	49.3	58.9	68.6	74.8	72.2	59.9	44.7	32.3	29.7	49.7

PIOCHE, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	71.6	62.9	48.6	39.6	33.3	......
1878	29.5	32.7	41.6	45.1	53.2	64.5	72.7	74.0	60.7	52.2	43.0	31.9	50.1
1879	29.2	38.9	48.8	49.0	55.0	63.4	72.1	72.1	67.7	52.0	39.3	30.7	51.5
1880	30.3	27.8	33.8	46.7	55.5	65.1	72.7	69.3	62.7	50.4	32.1	34.3	48.4
1881	29.7	37.5	39.4	53.3	58.1	66.9	72.1	69.8	61.5	48.9	35.9	36.7	50.8
1882	26.4	38.8	36.4	43.6	54.0	61.8	73.3	72.0	62.9	46.8	37.5	36.5	48.3
1883	28.2	29.2	46.0	41.1	53.1	......	......	......	......	......	......	......	......
1888	......	37.0	38.5	54.8	57.4	......	69.7	68.6	67.4	51.6	......	30.4	......
1889	24.1	30.2	40.4	50.8	56.4	67.4	74.6	71.4	[62.9]	[50.1]	45.4	37.6	[50.9]
1890	......	......	......	......	......	......	70.7	64.2	57.1	......	......	......	......
Means	28.2	34.0	40.6	48.0	55.3	64.8	72.2	70.3	62.9	50.1	39.0	33.9	49.9

RENO, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	34.0	42.0	50.8	59.3	68.8	......	......	......	......	......	28.5	......
1871	34.0	34.6	40.3	48.7	67.2	74.0	78.5	76.3	65.6	51.6	39.1	37.9	54.0
1872	37.7	43.6	45.3	43.5	60.2	81.5	82.3	77.4	67.0	56.0	32.1	29.5	51.7
1873	33.4	28.1	42.1	48.2	51.1	67.1	74.2	[70.0]	66.0	61.3	36.3	26.1	[50.3]
1874	23.0	29.3	38.8	43.6	46.6	66.2	80.9	66.9	[59.5]	50.4	34.7	30.6	[47.5]
1875	29.0	33.4	37.1	46.6	57.2	72.7	78.6	72.7	65.2	55.9	43.8	41.4	52.8
1876	24.7	34.3	42.3	49.5	59.2	67.4	75.9	68.1	57.4	54.1	40.7	31.6	50.4
1877	29.2	44.6	48.5	42.5	56.7	66.2	76.7	68.2	61.8	50.4	40.0	32.2	51.4
1878	34.3	39.3	43.2	52.8	60.7	73.4	74.0	73.7	64.4	45.4	36.6	30.0	52.3
1879	26.7	[40.0]	51.5	45.7	61.8	66.8	70.8	71.5	[64.5]	44.2	33.5	27.7	[50.4]
1880	27.6	28.8	36.4	42.6	54.3	68.8	75.6	67.8	63.0	49 8	33.8	35.2	48.6
1881	34.9	42.0	46.0	57.5	60.2	67.1	70.0	62.9	58.8	45.8	28.1	32.3	50.5
1882	23.4	28.3	31.7	43.3	56.9	63.4	68.9	71.6	55.0	38.8	29.7	28.1	44.9
1883	17.9	[22.0]	42.4	44.8	56.3	74.7	76.1	71.7	65.9	45.2	37.3	28.9	[48.6]
1884	25.7	25.7	37.1	41.9	54.5	62.3	69.3	68.7	53.4	47.4	41.8	35.4	46.9
1885	42.3	40.0	41.7	48.3	63.0	64.4	76.3	77.3	62.2	51.0	40.9	37.6	53.8
1886	32.8	41.6	42.4	48.9	60.3	66.6	72.2	73.1	68.4	49.5	36.1	37.3	52.4
1887	32.8	26.3	41.1	45.4	53.2	66.6	68.5	56.7	46.6	47.6	42.8	32.3	46.7
1888	......	......	......	54.0	56.6	60.0	78.5	......	68.5	53.8	39.8	40.8	......
1889	28.5	35.4	......	52.2	......	......	......	......	......	......	......	......	......
1890	25.0	31.8	39.6	50.6	59.8	63.9	74.9	69.3	61.2	......	......	......	......
Means	29.6	34.2	41.6	47.7	57.8	68.1	74.8	70.3	61.7	49.9	37.1	32.8	50.5

RUBY, FORT, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1863	30.3	32.7	42.8	[45.4]	62.9	71.0	72.5	73.6	67.0	51.8	38.8	36.5	[52.1]
1864	33.3	40.0	44.0	50.6	58.6	61.3	73.7	74.4	68.0	54.0	40.3	31.9	52.5
1865	31.0	26.9	39.0	44.9	60.9	67.8	71.0	77.8	65.4	57.4	48.2	24.1	51.2
1866	24.4	30.3	37.8	44.1	......	......	......	......	59.6	46.8	37.4	32.9	......
1867	29.8	28.8	26.4	41.9	[58.1]	63.7	73.3	[73.8]	56.4	46.7	38.0	36.9	[47.8]
1868	15.9	20.5	34.8	45.8	49.8	60.6	72.7	69.5	60.0	50.4	[40.6]	[32.5]	[46.1]
Means	27.4	29.9	37.5	45.4	58.1	64.9	72.6	73.8	62.7	51.2	40.6	32.5	49.7

***Mean monthly and annual temperature at stations in Nevada*—Continued.**

TECOMA, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	......	33.9	25.2	......
1878	24.2	[33.0]	45.5	52.5	56.4	66.5	78.5	73.7	59.0	40.8	31.4	14.7	[48.4]
1879	13.8	28.8	39.8	40.0	56.8	67.1	82.6	76.7	67.6	50.0	29.6	25.7	48.2
1880	23.4	[26.0]	32.2	47.2	58.2	74.3	81.3	76.9	65.5	48.9	27.3	30.4	[49.3]
1881	32.3	37.4	42.3	58.5	66.8	72.8	82.1	77.8	60.5	38.6	30.0	24.3	52.0
1882	17.6	21.5	29.3	41.4	56.2	65.1	77.3	73.1	58.0	39.6	22.9	27.4	44.1
1883	16.9	17.9	43.4	45.0	58.2	73.4	80.4	74.3	62.0	38.9	31.7	27.2	47.4
1884	15.1	20.2	38.3	44.8	59.9	65.2	70.7	69.9	48.4	43.7	[38.0]	31.3	[45.5]
1885	23.8	35.3	45.3	59.5	63.7	69.8	81.1	80.4	71.4	59.3	41.7	33.8	55.4
1886	27.1	40.5	38.1	51.8	65.4	70.3	81.3	80.2	61.5	44.5	25.0	31.0	51.4
1887	31.0	27.4	48.0	50.9	66.6	73.5	82.8	79.5	67.6	53.0	36.6	25.8	53.6
1888	14.8	38.0	40.0	57.4	62.3	71.0	80.7	78.8	72.9	54.3	40.0	32.3	53.5
1889	15.2	27.2	48.8	56.3	63.2	75.9	82.7	81.3	63.6	52.3	36.6	31.6	52.9
1890	13.9	26.5	30.6	54.8	64.3	65.1	82.3	76.0	65.5	......	......	......	......
Means	20.7	29.2	40.1	50.8	61.5	70.0	80.1	77.3	63.2	47.0	32.7	27.7	50.0

TOANO, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[21.1]	36.5	30.0	44.2	57.2	67.3	75.3	[75.2]	56.3	45.9	40.3	23.0	[47.7]
1871	25.8	29.1	34.6	45.0	56.6	70.0	74.4	70.1	[61.3]	[46.8]	29.7	29.9	[47.8]
1872	31.2	35.5	38.8	40.7	54.3	68.3	72.7	70.1	59.4	50.9	29.3	29.1	48.4
1873	31.5	24.4	36.6	37.0	44.0	67.0	81.3	72.3	58.0	36.8	25.8	9.4	43.7
1874	12.5	8.9	16.0	26.0	48.0	65.4	76.3	71.7	61.9	50.5	38.8	28.2	42.0
1875	23.3	26.5	29.3	47.4	56.7	66.5	72.2	72.6	65.7	55.6	35.3	31.0	48.5
1876	20.6	26.4	28.9	43.1	49.4	71.3	72.1	58.7	64.2	47.7	34.2	26.5	45.3
1877	20.7	25.3	41.7	41.8	49.8	61.3	......	......	......	......	31.8	25.2	......
1878	27.3	[32.0]	41.8	46.7	53.7	68.0	74.2	74.2	59.4	45.7	37.9	25.8	[48.9]
1879	22.8	35.5	[35.5]	50.7	55.2	62.7	73.5	72.3	66.0	47.4	30.3	23.6	[48.8]
1880	22.6	[25.0]	26.3	38.2	51.2	62.8	71.4	68.8	58.1	45.0	22.9	27.3	[43.3]
1881	26.5	32.7	36.5	52.0	56.4	65.5	71.6	71.0	56.4	43.1	26.1	23.7	46.8
1882	14.2	20.2	27.9	39.9	52.7	65.0	73.4	73.1	59.3	39.8	[22.0]	20.9	[42.4]
1883	9.0	[16.0]	47.5	41.1	56.2	75.8	79.8	77.4	67.0	42.0	33.1	26.8	[47.6]
1884	21.4	22.4	35.4	42.2	52.0	60.8	68.1	69.5	51.4	48.4	38.8	24.4	44.6
1885	19.5	32.3	43.1	49.5	52.6	59.8	77.4	71.5	60.3	50.6	36.1	30.2	48.6
1886	22.7	36.5	30.9	45.9	60.2	65.7	76.8	77.6	61.9	42.9	26.7	34.5	48.5
1887	27.7	26.5	46.4	44.4	61.0	68.0	77.3	75.0	66.3	48.5	34.9	25.7	50.1
1888	13.0	33.6	34.5	56.4	59.6	67.5	78.9	[73.0]	70.2	51.0	34.7	29.4	[50.2]
1889	14.7	25.2	46.7	56.1	61.6	74.7	82.5	81.5	61.5	51.1	35.7	31.4	51.9
1890	15.1	28.0	37.1	50.7	64.1	64.1	77.0	71.9	......	......	......	......	......
Means	21.1	27.5	35.5	44.7	54.9	66.5	75.2	72.2	61.3	46.8	32.2	26.3	46.8

TUSCARORA, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	73.6	65.4	46.4	33.8	30.1	......
1889	20.2	26.4	39.8	46.8	[55.0]	61.9	68.6	66.2	54.2	45.6	34.8	25.2	[45.4]
1890	14.6	23.2	30.6	......	......	53.3	67.8	63.8	......	......	......	......	......
Means	17.4	24.8	35.2	46.8	55.0	57.6	68.2	67.9	59.8	46.0	34.3	27.6	45.0

VERDI, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	35.7	38.6	52.3	55.4	60.1	70.7	68.1	......	......	......	38.0	......
1889	27.7	33.9	43.4	50.2	55.6	68.5	73.9	71.0	63.1	50.4	38.8	31.8	50.7
1890	23.9	29.7	37.4	42.7	......	......	68.5	64.1	59.2	......	......	......	......
Means	25.8	33.1	39.8	48.4	55.5	64.3	71.0	67.7	61.2	50.4	38.8	34.9	49.2

WADSWORTH, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[31.9]	43.0	44.0	52.8	60.2	70.5	82.4	76.4	62.6	49.8	40.5	26.8	[53.4]
1871	32.1	32.7	44.6	49.3	60.6	71.3	78.1	77.8	65.6	46.8	34.5	35.4	52.4
1872	31.8	42.7	45.5	44.7	60.9	70.6	81.6	79.7	68.5	60.7	37.4	35.2	54.9
1873	41.6	35.5	45.2	51.8	58.7	77.3	87.4	80.8	76.0	56.1	51.1	30.4	57.7

***Mean monthly and annual temperature at stations in Nevada*—Continued.**

WADSWORTH, NEV.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	35.6	37.0	43.5	55.0	66.9	74.6	88.3	81.8	72.5	58.7	46.2	35.4	58.0
1875	35.6	38.2	46.8	62.6	69.3	75.0	85.2	81.8	76.3	64.6	49.2	41.7	60.5
1876	34.7	44.6	45.9	52.6	61.8	81.3	82.8	80.3	74.6	61.6	46.7	37.8	58.9
1877	30.3	39.1	54.6	52.2	61.4	77.6	......	......	......	......	41.8	32.3	......
1878	31.5	41.0	48.4	51.6	61.4	75.9	77.5	77.2	65 9	52.5	42.2	30.2	54.9
1879	30.3	41.5	45.7	50.2	49.3	65.7	78.9	79.7	70.6	53.7	34.9	26.9	52.3
1880	25.3	27.4	33.4	41.4	54.8	68.4	......	69.1	62.1	38.6	31.3	38.2	......
1881	36.1	41.5	43.9	58.1	62.5	70.7	74.5	71.5	63.3	49.4	35.0	32.4	53.2
1882	26.2	32.6	39.1	47.9	60.4	70.6	81.1	79.4	66.4	46.3	33.5	36.7	51.7
1883	28.2	25.1	49.2	47.0	55.1	72.6	85.5	81.2	67.3	50.5	42.1	35.5	53.3
1884	33.6	32.6	44.3	52.7	65.2	68.9	78.4	74.1	62.9	52.3	45.3	37.5	54.0
1885	35.0	46.7	50.7	55.7	[62.8]	69.5	83.2	83.8	75.1	58.5	45.2	40.0	[58.8]
1886	32.1	43.7	43.5	55.7	69.2	74.6	81.5	80.9	70.7	50.8	35.6	42.4	56.7
1887	38.1	32.4	47.5	51.4	64.0	71.8	79.2	75.4	66.0	54.4	44.6	35.0	55.0
1888	23.8	42.5	42.3	57.7	62.0	68.4	79.0	......	......	......	38.2	33.7	......
1889	......	......	......	......	63.6	77.8	83.9	80.8	66.5	54.5	42.9	37.8	......
1890	21.3	33.4	42.3	55.7	67.7	67.7	80.7	77.4	67.1	......	......	......	......
Means	31.9	37.7	45.0	52.3	61.9	72.4	81.7	78.4	68.5	53.3	40.9	35.1	54.9

WELLINGTON, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	48.4	49.4	55.3	64.6	67.3	[61.0]	[49.0]	36.7	33.4	......
1889	26.9	32.9	37.4	46.8	50.8	......	......	......	......	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	46.8

WELLS, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[21.6]	28.0	35.2	47.7	52.9	68.2	76.8	71.8	59.3	43.7	32.4	22.5	[46.7]
1871	26.2	29.0	33.8	46.1	59.1	70.9	74.9	74.3	67.1	44.7	34.5	27.2	49.0
1872	26.8	[31.0]	41.2	43.1	48.2	55.8	61.0	66.2	49.2	47.3	28.1	28.4	[44.4]
1873	28.7	23.9	35.5	40.5	48.1	61.9	72.3	68.0	59.4	40.7	35.2	16.5	44.2
1874	20.9	14.9	29.7	38.4	50.3	51.3	76.0	67.4	57.7	51.3	34.7	25.0	43.1
1875	22.4	22.8	27.9	45.4	54.2	67.4	72.6	73.8	62.4	56.2	38.9	29.3	47.8
1876	19.4	26.0	32.5	41.1	50.1	67.7	74.4	68.9	58.8	50.1	36.7	23.7	45.8
1877	20.4	30.0	40.5	44.4	48.8	66.2	......	......	......	......	......	31.2	......
1878	21.9	31.4	39.3	48.4	......	......	......	74.9	48.8	37.7	32.7	19.7	......
1879	20.6	32.6	42.0	48.7	52.8	63.5	77.9	79.8	72.5	55.2	38.7	26.3	50.9
1880	22.3	24.3	35.8	47.4	58.3	67.0	77.7	73.0	61.3	48.3	2 .7	27.3	[47.6]
1881	34.8	37.2	45.6	56.6	60.1	69.0	78.3	76.2	62.4	50.2	33.1	33.8	53.1
1882	22.2	22.2	31.4	44.9	58.1	60.2	77.7	78.0	63.2	43.8	32.7	31.2	47.1
1883	20.2	25.2	[49.0]	44.7	56.0	68.8	72.0	71.1	64.2	41.7	32.6	26.9	[47.7]
1884	20.0	19.9	33.4	42.0	53.4	60.1	67.9	68.6	52.6	44.3	32.3	27.2	43.5
1885	20.9	33.0	42.3	50.5	56.7	63.4	[74.4]	71.7	62.2	44.2	39.6	30.4	[49.1]
1886	26.0	38.6	37.0	43.0	57.6	72.1	79.4	74.9	59.7	41.4	28.8	33.1	49.3
1887	33.6	30.2	40.1	48.0	64.3	68.0	72.7	69.0	50.6	44.1	15.9	3.0†	45.0
1888	-2.1†	27.2	33.3	62.9	69.0	[66.5]	69.4	[73.0]	66.1	48.2	36.6	30.6	[48.4]
1889	11.8	20.7	45.8	51.2	58.2	78.0	80.3	80.4	57.5	49.8	37.8	32.9	50.4
1890	15.2	29.6	37.8	50.5	60.5	67.1	77.0	75.9	67.3	......	......	......	......
Means	21.6	27.7	37.6	46.9	55.8	65.7	74.4	72.7	59.7	46.5	33.2	26.3	47.3

WINFIELD SCOTT, CAMP, NEV.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	......	......	......	......	......	......	......	......	......	......	......	38.5	......
1867	31.9	30.1	24.3	46.2	56.9	66.1	75.9	79.8	66.6	52.7	44.2	37.1	51.0
1868	17.7	23.6	39.1	48.3	51.7	61.7	74.0	75.3	59.9	49.9	30.7	34.4	47.2
1869	30.9	31.3	42.9	48.5	63.6	71.8	78.6	75.7	61.3	[51.3]	35.2	35.2	[52.4]
1870	32.0	34.2	35.1	51.9	52.2	70.6	82.6	......	......	......	......	......	......
Means	28.1	29.8	35.4	48.7	56.1	67.6	77.8	73.6	63.6	51.3	36.7	36.3	48.3

Mean monthly and annual temperature at stations in Nevada—Continued.

WINNEMUCCA, NEV.*

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	39.0	38.4	51.8	57.2	70.6	......	......	......	49.0	37.4	24.6	......
1871	26.0	30.4	38.6	46.0	61.0	73.5	79.7	75.5	68.2	43.4	34.7	30.5	50.6
1872	29.8	35.0	41.9	42.3	55.9	68.9	80.7	76.1	61.4	53.0	32.9	32.5	50.9
1873	37.8	29.3	44.4	47.3	54.7	71.5	83.1	75.3	66.7	46.8	43.6	23.6	52.0
1874	29.9	24.4	34.1	48.1	61.9	68.9	82.3	72.3	63.7	56.8	40.9	31.5	51.2
1875	32.0	38.0	37.8	52.6	62.9	69.6	84.4	80.7	72.7	65.4	54.1	39.0	57.4
1876	33.5	38.6	36.4	51.2	61.2	73.0	75.7	68.5	65.0	50.1	57.3	28.4	53.2
1877	22.0	35.1	47.2	45.5	53.8	66.2	......	......	......	......	37.4	29.3	......
1878	32.1	[34.0]	44.8	49.4	55.5	69.4	78.0	80.3	60.7	42.8	38.4	24.4	[50.8]
1879	23.8	40.2	47.4	52.5	55.6	64.9	72.1	73.8	62.2	48.9	36.0	30.7	50.7
1880	32.4	29.3	32.6	44.0	50.2	63.7	73.7	69.3	58.7	44.8	30.7	38.6	47.3
1881	37.4	40.4	43.8	37.0	59.5	65.8	70.5	72.4	59.9	47.1	38.3	32.2	50.4
1882	27.5	25.8	37.4	48.6	56.7	69.1	79.8	77.6	61.8	47.4	34.8	34.2	50.1
1883	24.3	24.7	46.2	45.1	56.8	71.9	83.3	75.3	65.0	59.1	33.0	26.1	50.9
1884	23.4	20.2	38.0	48.8	63.9	72.3	83.8	83.1	58.0	48.8	43.4	34.4	51.5
1885	32.3	39.6	46.4	53.7	60.8	63.5	75.5	79.0	[63.0]	59.3	40.2	31.1	[54.0]
1886	31.9	38.8	40.4	48.4	60.8	73.6	82.3	82.7	68.9	49.5	34.4	36.4	51.0
1887	37.3	32.0	48.3	51.7	56.3	67.4	77.4	73.5	59.5	55.1	40.9	29.7	52.4
1888	21.1	[37.4]	40.0	54.6	58.3	66.7	76.1	71.0	[68.0]	51.3	51.1	38.5	[52.8]
1889	21.9	29.8	46.0	56.5	58.4	73.6	79.3	72.4	60.0	47.5	35.5	35.5	51.4
1890	19.3	36.5	......	43.8	64.8	65.4	80.6	69.3	......	......	......	......	......
Means	28.8	33.3	41.5	48.5	58.4	69.2	78.8	75.5	63.5	50.8	39.8	31.7	51.6

WINNEMUCCA, NEV.†

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	72.8	70.2	61.6	47.6	39.1	31.3	......
1878	32.4	35.6	44.0	47.0	53.8	67.4	71.7	74.0	57.8	47.0	40.0	26.6	49.8
1879	25.0	40.9	46.9	50.2	51.1	62.4	71.6	72.3	65.0	48.6	35.2	30.4	50.0
1880	32.7	29.8	32.6	43.4	51.0	62.3	72.7	68.2	61.0	48.4	30.0	[39.0]	[47.6]
1881	34.7	40.2	41.9	53.2	56.9	64.3	69.4	67.0	56.4	42.5	32.5	31.7	49.2
1882	24.7	24.7	34.0	44.4	53.6	63.9	73.1	72.5	58.7	43.7	34.3	34.2	46.8
1883	23.5	35.2	47.2	43.9	52.2	......	......	......	......	......	......	......	......
1884	......	......	......	......	......	......	......	......	......	......	......	33.2	......
1885	32.5	40.4	45.0	49.7	55.3	59.8	71.0	71.1	61.7	53.0	42.1	36.9	51.5
1886	32.3	40.3	36.4	44.0	56.7	64.2	71.5	72.3	59.8	44.2	30.5	37.1	49.1
1887	34.8	29.0	45.6	45.6	56.6	62.4	72.2	68.6	60.2	50.3	37.4	28.0	49.2
1888	18.7	38.9	39.1	54.6	56.8	62.8	71.6	69.6	66.6	50.6	39.2	35.1	50.3
1889	21.6	32.4	45.2	51.8	56.8	68.6	72.9	70.8	58.5	50.9	37.8	31.2	49.9
1890	19.3	36.5	38.8	43.8	64.8	65.4	......	......	......	......	......	......	......
Means	27.7	34.5	41.4	47.6	55.5	64.0	71.9	70.6	60.5	47.9	36.2	32.9	49.2

* Reports of Central Pacific Railway.
† Signal Service records.

Appendix No. 45.

METEOROLOGICAL OBSERVATIONS MADE IN THE STATE OF COLORADO.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record. Length.	Record. From—	Record. To (inclusive)—	T. or R. missing.	Authority.
	Larimer.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
V. O..	Box Elder	......	....	....	0 7	Mar., 1890	Sept., 1890	......	L. A. Rawlings.
V. O..	Fort Collins	40 35	105 02	5,000	9 7*	Nov., 1872	....do	......	Prof. L. G. Carpenter and others.
V. O..	Elkhorn	40 45	105 28	....	0 10	Aug., 1889	....do	T.	R. C. Boyle.
V. O..	Livermore	40 48	105 14	....	0 9*	....do	Aug., 1890	T.	G. C. Burnham.
V. O..	Middle Box Elder..	40 49	105 05	....	0 9	....do	May, 1890	T.	E. F. Kerr.
W. S..	Moraine	40 21	105 34	....	0 10*	Oct., 1889	Sept., 1890	......	M. M. Sprague.
V. O..	Upper Pine	......	....	....	0 11*	Aug., 1889	....do	T.	J. H. Halliday.
W. S..	Walden	39 30	107 09	8,050	1 5*	Aug., 1887	Feb., 1889	......	H. H. Richards.
	Weld.								
V. O..	Greeley...........	40 26	104 42	4,750	2 5*	Nov., 1887	Aug., 1890	......	D. W. Elliott.
W. S..	Hardin	40 25	104 30	....	1 0*	Sept., 1889	....do	T.	E. B. Barnes.
W. S..	Platteville........	......	....	......	0 11	Aug., 1888	June, 1889	......	
	Logan.								
V. O..	Crook	......	....	....	0 7	Mar., 1890	Sept., 1880	......	J. M. Boice.
V. O..	Le Roy (near)	40 34	102 56	....	0 6*	Oct., 1889	June, 1890	......	Chas. Green.
	Sedgwick.								
W. S..	Julesburg	40 59	102 15	3,475	2 0*	May, 1888	Sept., 1890	......	L. E. Loveland.
M. D..	Fort Sedgwick.....	41 00	102 27	3,660	3 2*	Apr., 1867	....do	......	U. S. post hospital and J. D. Lucas.
	Phillips.								
W. S..	Amherst...........	40 39	102 04	....	0 6*	Sept., 1889	Sept., 1890	T.	R. G. Taylor.
W. S..	Paoli	40 36	102 28	....	1 3*	Aug., 1888	Nov., 1889	......	L. W. Jones.
	Grand.								
V. O..	Fraser	39 57	105 49	....	1 0*	Apr., 1889	Apr., 1890	......	L. D. C. Gaskill.
V. O..	Hot Sulphur Springs	40 05	106 10	7,600	1 10	June, 1874	Mar., 1876	......	Wm. N. Byers.
	Boulder.								
W. S..	Boulder Cañon	......	....	....	0 8*	Oct., 1889	Aug., 1890	T.	G. E. Lake
W. S..	Longmont	40 10	105 06	5,000	3 9*	Sept., 1886	Sept., 1890	......	Dr. E. J. Clark.
	Morgan.								
W. S..	Brush	40 18	103 37	....	1 1	Aug., 1889	Sept., 1890	T.	Mrs. M. A. Leavett.
M. D..	Fort Morgan.......	40 18	103 42	4,500	2 4*	Dec., 1866	....do	......	U. S. post hospital and J. M. Lytle.
	Yuma.								
V. O..	Wray..............	......	....	....	0 7	Mar., 1890	Sept., 1890	......	J. W. Dilts.
V. O..	Yuma	......	....	....	0 7	....do	....do	......	Ira Edwards.
	Garfield.								
W. S..	Glenwood Springs..	39 32	107 19	5,760	2 6*	May, 1886	Sept., 1890	......	J. C. Kennedy.
W. S..	Rifle Falls	39 35	107 50	5,418	1 6*	Jan., 1889	....do	......	W. L. Wilder.

Mean monthly and annual temperature at stations in Nevada—Continued.

WINNEMUCCA, NEV.*

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	39.0	38.4	51.8	57.2	70.6	......	......	......	49.0	37.4	24.6	......
1871	26.0	30.4	38.6	46.0	61.0	73.5	79.7	75.5	68.2	43.4	34.7	30.5	50.6
1872	29.8	35.0	41.9	42.3	55.9	68.9	80.7	76.1	61.4	53.0	32.9	32.5	50.9
1873	37.8	29.3	44.4	47.3	54.7	71.5	83.1	75.3	66.7	46.8	43.6	23.6	52.0
1874	29.9	24.4	34.1	48.1	61.9	68.9	82.3	72.3	63.7	56.8	40.9	31.5	51.2
1875	32.0	38.0	37.8	52.6	62.9	69.6	84.4	80.7	72.7	65.4	54.1	39.0	57.4
1876	33.5	38.6	36.4	51.2	61.2	73.0	75.7	68.5	65.0	50.1	57.3	28.4	53.2
1877	22.0	35.1	47.2	45.5	53.8	66.2	......	......	......	......	37.4	29.3	......
1878	32.1	[34.0]	44.8	49.4	55.5	69.4	78.0	80.3	60.7	42.8	38.4	24.4	[50.8]
1879	23.8	40.2	47.4	52.5	55.6	64.9	72.1	73.8	62.2	48.9	36.0	30.7	50.7
1880	32.4	29.3	32.6	44.0	50.2	63.7	73.7	69.3	58.7	44.8	30.7	38.6	47.3
1881	37.4	40.4	43.8	37.0	59.5	65.8	70.5	72.4	59.9	47.1	38.3	32.2	50.4
1882	27.5	25.8	37.4	48.6	56.7	69.1	79.8	77.6	61.8	47.4	34.8	34.2	50.1
1883	24.3	24.7	46.2	45.1	56.8	71.9	83.3	75.3	65.0	59.1	33.0	26.1	50.9
1884	23.4	20.2	38.0	48.8	63.9	72.3	83.8	83.1	58.0	48.8	43.4	34.4	51.5
1885	32.3	39.6	46.4	53.7	60.8	63.5	75.5	79.0	[63.0]	59.3	40.2	34.1	[54.0]
1886	31.9	38.8	40.4	48.4	60.8	73.6	82.3	82.7	68.9	49.5	34.4	36.4	51.0
1887	37.3	32.0	48.3	51.7	56.3	67.4	77.4	73.5	59.5	55.1	40.9	29.7	52.4
1888	21.1	[37.4]	40.0	54.6	58.3	66.7	76.1	71.0	[68.0]	51.3	51.1	38.5	[52.8]
1889	21.9	29.8	46.0	56.5	58.4	73.6	79.3	72.4	60.0	47.5	35.5	35.5	51.4
1890	19.3	36.5	......	43.8	64.8	65.4	80.6	69.3	......	......	......	......	......
Means	28.8	33.3	41.5	48.5	58.4	69.2	78.8	75.5	63.5	50.8	39.8	31.7	51.6

WINNEMUCCA, NEV.†

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	72.8	70.2	61.6	47.6	39.1	31.3	......
1878	32.4	35.6	44.0	47.0	53.8	67.4	71.7	74.0	57.8	47.0	40.0	26.6	49.8
1879	25.0	40.9	46.9	50.2	51.1	62.4	71.6	72.3	65.0	48.6	35.2	30.4	50.0
1880	32.7	29.8	32.6	43.4	51.0	62.3	72.7	68.2	61.0	48.4	30.0	[39.0]	[47.6]
1881	34.7	40.2	41.9	53.2	56.9	64.3	69.4	67.0	56.4	42.5	32.5	31.7	49.2
1882	24.7	24.7	34.0	44.4	53.6	63.9	73.1	72.5	58.7	43.7	34.3	34.2	46.8
1883	23.5	35.2	47.2	43.9	52.2	......	......	......	......	......	......	......	......
1884	......	......	......	......	......	......	......	......	......	......	......	33.2	......
1885	32.5	40.4	45.0	49.7	55.3	59.8	71.0	71.1	61.7	53.0	42.1	36.9	51.5
1886	32.3	40.3	36.4	44.0	56.7	64.2	71.5	72.3	59.8	44.2	30.5	37.1	49.1
1887	34.8	29.0	45.6	45.6	56.6	62.4	72.2	68.6	60.2	50.3	37.4	28.0	49.2
1888	18.7	38.9	39.1	54.6	56.8	62.8	71.6	69.6	66.6	50.6	39.2	35.1	50.3
1889	21.6	32.4	45.2	51.8	56.8	68.6	72.9	70.8	58.5	50.9	37.8	31.2	49.9
1890	19.3	36.5	38.8	43.8	64.8	65.4	......	......	......	......	......	......	......
Means	27.7	34.5	41.4	47.6	55.5	64.0	71.9	70.6	60.5	47.9	36.2	32.9	49.2

* Reports of Central Pacific Railway.
† Signal Service records.

Appendix No. 45.

METEOROLOGICAL OBSERVATIONS MADE IN THE STATE OF COLORADO.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record. Length.	Record. From—	Record. To (inclusive)—	T. or R. missing.	Authority.
	Larimer.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
V. O ..	Box Elder	......	....	....	0 7	Mar., 1890	Sept., 1890	......	L. A. Rawlings.
V. O ..	Fort Collins	40 35	105 02	5,000	9 7*	Nov., 1872	....do	......	Prof. L. G. Carpenter and others.
V. O ..	Elkhorn	40 45	105 28	....	0 10	Aug., 1889	....do	T.	R. C. Boyle.
V. O ..	Livermore	40 48	105 14	....	0 9*	....do	Aug., 1890	T.	G. C. Burnham.
V. O ..	Middle Box Elder ..	40 49	105 05	....	0 9	....do	May, 1890	T.	E. F. Kerr.
W. S ..	Moraine	40 21	105 34	....	0 10*	Oct., 1889	Sept., 1890	......	M. M. Sprague.
V. O ..	Upper Pine	......	....	....	0 11*	Aug., 1889	....do	T.	J. H. Halliday.
W. S ..	Walden	39 30	107 09	8,050	1 5*	Aug., 1887	Feb., 1889	......	H. H. Richards.
	Weld.								
V. O ..	Greeley	40 26	104 42	4,750	2 5*	Nov., 1887	Aug., 1890	......	D. W. Elliott.
W. S ..	Hardin	40 25	104 30	....	1 *0	Sept., 1889	....do	T.	E. B. Barnes.
W. S ..	Platteville	......	....	....	0 11	Aug., 1888	June, 1889	......	
	Logan.								
V. O ..	Crook	......	....	....	0 7	Mar., 1890	Sept., 1880	......	J. M. Boice.
V. O ..	Le Roy (near)	40 34	102 56	....	0 6*	Oct., 1889	June, 1890	......	Chas. Green.
	Sedgwick.								
W. S ..	Julesburg	40 59	102 15	3,475	2 0*	May, 1888	Sept., 1890	......	L. E. Loveland.
M. D ..	Fort Sedgwick.....	41 00	102 27	3,660	3 2*	Apr., 1867	....do	......	U. S. post hospital and J. D. Lucas.
	Phillips.								
W. S ..	Amherst	40 39	102 04	....	0 6*	Sept., 1889	Sept., 1890	T.	R. G. Taylor.
W. S ..	Paoli	40.36	102 28	....	1 3*	Aug., 1888	Nov., 1889	......	L. W. Jones.
	Grand.								
V. O ..	Fraser	39 57	105 49	....	1 0*	Apr., 1889	Apr., 1890	......	L. D. C. Gaskill.
V. O ..	Hot Sulphur Springs	40 05	106 10	7,600	1 10	June, 1874	Mar., 1876	......	Wm. N. Byers.
	Boulder.								
W. S ..	Boulder Cañon	......	....	....	0 8*	Oct., 1889	Aug., 1890	T.	G. E. Lake
W. S ..	Longmont	40 10	105 06	5,000	3 9*	Sept., 1886	Sept., 1890	......	Dr. E. J. Clark.
	Morgan.								
W. S ..	Brush	40 18	103 37	....	1 1	Aug., 1889	Sept., 1890	T.	Mrs. M. A. Leavett.
M. D ..	Fort Morgan........	40 18	103 42	4,500	2 4*	Dec., 1866	....do	......	U.S. post hospital and J. M. Lytle.
	Yuma.								
V. O ..	Wray	......	....	....	0 7	Mar., 1890	Sept., 1890	......	J. W. Dilts.
V. O ..	Yuma	......	....	....	0 7	....do	....do	......	Ira Edwards.
	Garfield.								
W. S ..	Glenwood Springs ..	39 32	107 19	5,760	2 6*	May, 1886	Sept., 1890	......	J. C. Kennedy.
W. S ..	Rifle Falls	39 35	107 50	5,418	1 6*	Jan., 1889	....do	......	W. L. Wilder.

Meteorological observations made in the State of Colorado—Continued.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record. Length.	Record. From—	Record. To (inclusive)—	T. or R. missing.	Authority.
	Eagle.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
V. O	Red Cliff				1 0*	Feb., 1888	Sept., 1890		H. W. Goodrich.
	Summit.								
W. S	Breckenridge	39 30	106 00	9,524	1 10*	Oct., 1888	....do		Dr. B. A. Arbogast.
V. O	Dillon				0 9*	June, 1888	....do		S. S. Pratt.
	Clear Creek.								
V. O	Georgetown	39 43	105 41	8,594	4 11*	Oct., 1878	....do		Dr. W. A. Jayne and others.
W. S	Idaho Springs	39 45	105 30	7,569	3 6*	Aug., 1886	June, 1890		F. D. Wiley.
	Jefferson.								
V. O	Golden City	39 44	105 20	5,993	4 11*	May, 1860	Sept., 1887		J. McDonald, M. S. Blount, E. L. Berthoud, G. W. Davies, and H. J. Frosch.
V. O	Hutchinson	39 32	105 16		1 0	Jan., 1875	Dec., 1875		J. C. Stanton.
	Arapahoe.								
V. O	Abbott				0 7	Mar., 1890	Sept., 1890		S. T. Shipman.
W. S	Bennett	39 46	104 26		1 10*	Feb., 1888	....do		Weather Service.
W. S	Byers	39 43	104 13		1 4*	Mar., 1889	....do		Pacific Rwy. system.
W. S	Deer Trail	39 38	104 01		1 3*	....do	....do		Do.
S. S	Denver	39 45	105 00	5,281	20 10	Dec., 1869	....do		Signal Service, W. N. Byers and others.
M. D	Fort Logan				1 0	Jan., 1889	Dec., 1889		U. S. post hospital.
V. O	Kirk				0 8	Feb., 1890	Sept., 1890		G. M. Neikirk.
W. S	Watkins	39 46	104 34		1 2*	Mar., 1889	....do		Pacific Rwy. system.
	Mesa.								
V. O	Fruita	39 10	108 43		0 11*	Oct., 1889	Sept., 1890		Dr. T. H. Breen.
V. O	Grand Junction	39 05	108 25	4,500	1 5*	Apr., 1884	May, 1888		Frank McClintock.
W. S	T. S. Ranche	39 00	108 15		3 8	Feb., 1887	Sept., 1890		E. A. Rider.
	Pitkin.								
W. S	Aspen	39 12	106 50	8,000	2 9*	Oct., 1886	Mar., 1890		C. W. Thiele.
	Lake.								
W. S	Climax	39 25	106 05	11,325	3 3*	Jan., 1888	Sept., 1890		G. C. Wortman.
W. S	Leadville	39 15	106 17	10,200	2 4*	June, 1888	....do		J. C. Carroll.
	Park.								
W. S	Alma	39 18	106 04	10,320	3 9*	Apr., 1886	....do		C. A. Montrose.
V. O	Dudley	39 30	106 00	10,500	1 4*	Jan., 1877	May, 1878	R.	
W. S	Como (near)	39 18	105 53	9,500	5 9	Jan., 1885	Sept., 1890		A. Reichenecker.
W. S	Dolly Varden Mine	39 20	106 00		1 1*	Aug., 1888	Oct., 1889		C. L. Cass.
	Douglas.								
W. S	Castle Rock				0 10*	Apr., 1888	Sept., 1890		W. Holcomb.
	Elbert.								
W. S	River Bend	39 18	103 46		1 3*	Mar., 1889	Sept., 1890	R.	Pacific Rwy. system.
W. S	Thon	39 0	104 33	5,795	2 6	Mar., 1888	....do		P. Blumer.
	Lincoln.								
W. S	Aroya	38 53	103 09		0 9*	Oct., 1889	Aug., 1890		W. L. Doyle.
W. S	Hugo	39 07	103 25	5,068	1 10*	June, 1886	Sept., 1890		Pacific Rwy. system.
	Kit Carson.								
V. O	Burlington				0 10*	June, 1888	June, 1889		

Meteorological observations made in the State of Colorado—Continued.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea-level.	Record. Length.	Record. From—	Record. To (inclusive)—	T. or R. missing.	Authority.
	Delta.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
V. O ..	Delta	38 45	108 06	4,950	2 1	Sept., 1888	Sept., 1890	......	Miss M. Zaninnetti.
	Gunnison.								
V. O ..	Gunnison	38 34	106 52	7,558	2 4	Jan., 1884	....do	......	D. McCann.
	El Paso.								
W. S ..	Peyton	39 0	104 36	....	1 9*	July, 1888	....do	T.	H. Y. Nichols.
S. S ..	Colorado Springs ..	38 51	104 47	6,032	12 4*	Dec., 1871	....do	......	Signal Service, Prof. F. H. Loud, and others.
V. O ..	Fountain	38 40	103 40	5,420	2 6*	Nov., 1871	Feb., 1875	......	C. J. Croft.
W. S ..	Husted	39 00	104 49	6,540	4 1	May, 1886	Sept., 1890	......	E. P. Moon.
W. S ..	Palmer Lake	39 07	104 51	....	1 8	Oct., 1887	May, 1890	......	T. Gaddes.
S. S ..	Pike's Peak	38 50	105 02	14,134	14 11	Nov., 1873	Sept., 1888	......	Signal Service.
W. S ..	Wigwam	38 32	104 36	....	0 11*	June, 1888	Mar., 1890	T.	Jos. Irvine.
	Cheyenne.								
W. S ..	First View	38 49	102 30	....	1 3*	Mar., 1889	Sept., 1890	......	Pacific Rwy. system.
S. S ..	Kit Carson	38 43	102 47	4,289	3 5*	Aug., 1877	....do	......	Signal Service, Pacific Rwy. system, and C. M. Morrison.
	Kiowa.								
V. O ..	Brandon	......	....	......	0 7	Mar., 1890	Sept., 1890	......	J. H. Weller.
V. O ..	Sheridan Lake	......	....	......	0 7	....do	....do	......	W. A. Rigor.
	Montrose.								
M. D ..	Fort Crawford	38 26	107 55	....	1 9	Jan., 1889	....do	.....	U. S. post hospital.
S. S ..	Montrose	38 30	107 56	5,795	5 5	Feb., 1885	June, 1890	......	Signal Service.
	Fremont.								
V. O ..	Cañon City	38 30	105 00	4,700	4 1*	Dec., 1869	Sept., 1890	T.	W. B. Felton.
	San Miguel.								
W. S ..	Pandora	38 03	107 40	8,700	1 9*	June, 1886	July, 1888	......	
	Saguache.								
W. S ..	Saguache	38 05	106 15	7,740	2 9*	Sept., 1886	Oct., 1889	......	J. W. Rambo.
W. S ..	Villa Grove	38 14	105 52	....	1 2*	Apr., 1889	Sept., 1890	T.	L. T. Durbin.
	Custer.								
W. S ..	Westcliffe	38 07	105 26	7,800	2 1*	Apr., 1886	....do	......	T. Charlton.
	Pueblo.								
V. O ..	Eagle Farm	38 07	104 35	....	1 2*	Aug., 1889	....do	T.	A. W. Wing.
S. S ..	Pueblo *	38 18	104 36	4,753	9 9	Sept., 1872	....do	......	Signal Service, E. S. Nettleton and Dr. F. H. Lay.
M. D ..	Fort Reynolds	38 15	104 12	4,300	4 0	May, 1868	Apr., 1872	......	U. S. post hospital.
	Otero.								
V. O ..	Rocky Ford	38 00	103 40	4,100	2 0	Oct., 1888	Sept., 1890	......	F. Watrous.
	Bent.								
S. S ..	Las Animas	38 04	103 12	3,899	7 10	Oct., 1881	....do	......	Signal Service.
M. D ..	Fort Lyon	38 06	103 30	4,000	20 7*	June, 1862	Oct., 1889	......	Signal Service and U. S. post hospital.
M. D ..	Fort Wise	......	....	....	1 6	Dec., 1860	May, 1862	......	U. S. post hospital.
	Prowers.								
W. S ..	Lamar	38 05	102 34	....	1 9	Jan., 1889	Sept., 1890	......	G. T. Herbert.

*Combined with South Pueblo.

Meteorological observations made in the State of Colorado—Continued.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record. Length.	From—	To (inclusive)—	T. or R. missing.	Authority.
	San Juan.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
V. O..	Silverton	37 46	107 46	9,400	1 5	Sept., 1875	Feb., 1887	......	A. N. Fuller.
	Rio Grande.								
W. S..	Monte Vista	37 35	106 05	7,665	4 0*	Aug., 1886	Sept., 1890	......	C. J. Aldrich.
V. O..	Summit	37 28	106 35	11,300	3 7*	Aug., 1876	Oct., 1880	......	Chas. E. Robins.
	Huerfano.								
M. D..	Fort Massachusetts.	37 30	105 33	8,365	5 8*	Sept., 1852	Aug., 1858	......	U. S. post hospital.
	La Plata.								
S. S..	Durango	37 15	107 50	....	1 11*	Aug., 1886	July, 1890	T.	T. J. Jackson.
V. O..	Hermosa	37 24	107 50	6,700	7 0*	Apr., 1875	Aug., 1882	......	A. N. Fuller.
M. D..	Fort Lewis	37 15	107 57	8,500	10 1*	Jan., 1880	Sept., 1890	......	U. S. post hospital.
	Conejos.								
V. O..	Platora	37 22	106 29	....	0 8*	Aug., 1889	July, 1890	T.	C. W. Raymond.
	Costilla.								
M. D..	Fort Garland	37 25	105 23	7,937	21 9*	Sept., 1858	Oct., 1883	......	U. S. post hospital.
V. O..	San Luis	37 14	105 24	....	1 2*	Aug., 1889	Sept., 1890	......	H. H. Griffin.
	Las Animas.								
W. S..	Apishapa	37 26	104 33	6,167	1 1	Sept., 1889	....do	......	Mrs. J. Rogers.
S. S..	Trinidad	37 11	104 28	6,070	5 1*	Aug., 1877	May, 1888	......	C. B. Park.
V. O..	Watervale	......	....	....	0 7	Mar., 1890	Sept., 1890	......	M. D. Pierce.
V. O..	Stanford	......	....	....	0 8*	Jan., 1890	....do	......	Geo. Poehill.
	Baca.								
W. S..	Vilas	37 21	102 25	....	0 10	Nov., 1889	Aug., 1890	T.	
W. S..	Springfield	37 27	102 38	....	1 7*	June, 1888	Sept., 1890	T.	G. W. Johnston.

Appendix No. 46.

MONTHLY AND ANNUAL PRECIPITATION AT STATIONS IN COLORADO.

Interpolated values are given in brackets[ ]. Capital T indicates a trace of precipitation. Letters of the alphabet set against the data for any month indicate the number of days missing from the record for that month—thus, "c" indicates three days missing.

ABBOTT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1890	......	......	0.18	3.02	1.13	1.00	1.09	2.11	0.30	......	......	......	......

ALMA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	4.97	0.32	0.46	0.74	0.66	......
1887	0.92	0.42	0.24	0.43	0.57	0.73	......	......	......	......	......	......	......
1888	[0.35]	[0.40]	0.43	0.99	0.76	0.52	1.97	1.52	0.34	1.32	0.36	0.02	[8.98]
1889	0.33	0.19	0.08	1.02	2.35	0.76	1.53	3.45	0.48	0.53	[1.30]	[0.70]	[12.72]
1890	......	......	3.18	4.35	0.12	0.07	......	2.29	1.04	......	......	......	......
Means	0.53	0.34	0.98	1.70	0.95	0.52	1.75	3.06	0.54	0.77	0.80	0.46	12.40

AMHERST, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	0.33	......	0.00	......	......
1890	......	......	......	......	......	3.41	2.01	1.01	0.00	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

APISHAPA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	1.03	1.70	2.75	0.20	......
1890	0.20	0.20	0.85	0.74	0.13	0.11	0.26	1.72	0.04	......	......	......	......
Means	0.20	0.20	0.85	0.74	0.13	0.11	0.26	1.72	0.54	1.70	2.75	0.20	9.40

AROYA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	[0.30]	0.25	0.50	0.00	......
1890	0.08	[0.05]	[0.10]	2.25	1.44	0.43	1.53	1.01	......	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	[7.94]

ASPEN, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	3.42	1.10	2.24	2.88	0.07	1.76	1.59	0.41	......
1889	0.45	1.01	0.54	0.55	......	......	......	......	......	0.86	......	2.69	......
1890	1.90	4.40	......	......	......	......	......	......	......	......	......	......	......
Means	1.18	2.70	0.54	0.55	3.42	1.10	2.24	2.88	0.07	1.31	1.59	1.55	19.13

Monthly and annual precipitation at stations in Colorado—Continued.

BENNETT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	0.40	1.00	5.85	5.05	1.80	......	......	......	[2.50]	[0.40]	0.15	......
1890	0.70	0.62	0.05	4.00	1.75	......	0.85	2.02	0.20	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	[15.04]

BOULDER CAÑON, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	1.85	0.45	0.04	......
1890	......	0.48	......	3.20	......	0.20	3.83	4.25	......	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

BOX ELDER, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1890	......	......	0.35	2.08	0.73	0.89	2.51	2.25	0.00	......	......	......	......

BRANDON, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1890	......	......	T	2.03	0.33	0.66	1.34	0.85	0.00	......	......	......	......

BRECKENRIDGE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.60	[0.50]	0.70	4.50	5.89	1.47	1.45	0.66	2.00	0.95	4.70	2.25	[25.67]
1890	1.05	1.40	6.45	2.15	......	0.25	1.76	1.76	2.12	......	......	......	......
Means	0.82	0.95	3.58	3.38	5.89	0.86	1.60	1.21	2.06	0.95	4.70	2.25	28.25

BRUSH, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	1.08	......	2.12	0.78	0.12	......
1890	0.30	0.57	T	2.38	0.37	0.03	1.33	0.99	0.01	......	......	......	......
Means	0.30	0.57	T	2.38	0.37	0.03	1.33	1.04	0.01	2.12	0.78	0.12	9.05

BURLINGTON, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	1.27	0.81	4.36	0.10	0.56	[0.25]	[0.05]	......
1889	0.54	0.41	1.80	3.38	[2.00]	2.23	......	......	......	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	16.01

BYERS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	1.51	......	......	......	......	......	0.74	0.78	......	......
1890	0.35	0.15	0.02	......	......	......	1.10	0.95	0.25	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

Monthly and annual precipitation at stations in Colorado—Continued.

CAÑON CITY, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869												1.10	
1888	1.87	0.30	0.67	1.61	1.16	0.00	1.36	2.38	T	0.62	0.74	0.00	10.71
1889	0.29	1.74	0.20	1.92	1.33	0.67	1.07	2.09	1.01	1.18	0.78	0.25	12.53
1890	0.46	0.20	0.45	4.16	0.80		1.20	0.94	T				
Means	0.87	0.75	0.44	2.56	1.10	0.34	1.21	1.80	0.34	0.90	0.76	0.45	11.52

CASTLE ROCK, COLO.

1888				2.40								0.15	
1889	0.42												
1890			0.70	1.41	1.51	0.10	2.26	2.69	0.05				
Means													

CLIMAX, COLO.

1888				1.05	1.91	0.98	1.55	2.36	0.50	1.21	1.00	0.76	
1889	0.73	0.94	0.71	2.13	4.21	1.43	1.48	1.63	1.26	1.56	3.15	0.98	20.21
1890	1.03	2.51	6.10	3.50	2.35	0.68	3.57	2.45	2.32				
Means	0.88	1.72	3.40	2.23	2.82	1.03	2.20	2.15	1.36	1.38	2.08	0.87	22.12

COLLINS, FORT, COLO.

1872											0.02	0.20	
1873	0.25	0.16	[0.60]	1.20	2.30	1.50	1.30	0.85	0.75	0.42	0.20	0.17	[9.70]
1874	0.06	0.43	1.20	0.77	2.95	0.65	3.15	0.25	[1.10]	1.00	0.02	0.00	[11.58]
1879										1.75	0.15	0.60	
1880	1.27	0.40	0.38	0.94	0.60	0.86	1.80	0.37	1.47	2.07	[1.10]	0.10	[11.36]
1881	1.10	0.55	1.45										
1882			0.17		4.67	3.07	1.76	0.89	2.51	0.82	0.29		
1883	1.00	1.50	0.68			3.18		1.78	1.00	1.29	T	1.33	
1884	1.10	0.70	1.15	3.94	4.84					0.10	1.80	0.35	
1885	1.77												
1886										0.69	1.18	0.33	
1887	0.86	0.23	0.45	1.10	1.23	1.96	3.05	2.12	0.54	0.43	0.15	0.00	12.12
1888	0.29	0.36	0.73	1.23	3.39	0.47	0.60	1.01	0.29	0.88	0.38	0.16	9.79
1889	0.22	0.34	0.65	2.07	3.39	2.06	0.78	0.95	0.42	3.16	0.42	0.02	14.48
1890	0.13	0.21	0.22	3.92	1.19	0.12	1.27	3.14	0.07				
Means	0.73	0.49	0.77	1.90	2.72	1.72	1.56	1.03	0.90	1.15	0.48	0.30	13.75

COLORADO SPRINGS, COLO.

1871												0.33	
1872	0.09	0.24	1.10	2.05	3.24	2.35	4.71	3.75	0.50	0.04	0.26	0.23	18.56
1873	0.03	0.05	0.19	0.96	1.76	2.65	4.53	3.28	1.70	0.65	0.00	0.15	15.95
1874	0.06	0.54	0.50	3.55	5.90	0.20	0.81	0.91	3.37	0.19	0.35	0.15	16.53
1875	0.24	0.56	1.12	0.30	1.03	1.82	6.07	2.39	2.23	0.13	1.19	0.29	17.37
1876	0.12	0.19	0.63	0.52	3.83	1.89	1.36						
1877											0.22	0.18	
1878	0.02	0.02	[1.80]	0.20	1.69	3.78	2.80	1.66	1.12	0.45	1.10	1.66	[16.30]
1879	0.38	0.09	0.73	1.43	2.23	0.42							
1880	0.22	0.24	0.59				5.27						
1883	0.35	T	0.17	0.86	1.51			0.97	1.78		0.00		
1885			0.12	1.33	1.84								
1886	0.60	0.25	0.39	4.82	0.12	3.06	2.91	1.39	0.33	0.28	0.19	0.15	14.49
1887	0.06	0.22	0.19	1.54	2.24	1.88	4.75	4.42	0.80	0.35	0.40	0.08	16.93
1888	0.10	0.45	0.28	1.51	2.42	0.01	1.91	1.18	0.13	0.84	0.22	0.07	9.12
1889	0.16	0.60	0.12	1.17	2.34	1.77	2.88	1.49	0.86	2.08	0.16	0.14	13.77
1890	0.41	0.13	0.39	3.90	1.43	0.44	1.64	4.99	0.17				
Means	0.20	0.26	0.55	1.72	2.26	1.69	3.45	2.14	1.28	0.56	0.37	0.31	14.79

***Monthly and annual precipitation at stations in Colorado*—Continued.**

CRAWFORD, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	2.36	0.50	[0.52]	0.78	0.41	0.38	0.82	1.35	0.67	0.44	0.37	1.20	....
1890	0.56	0.55	1.17	1.22	0.17	0.02	0.30	1.58	0.53g	......	......	......	....
Means	1.46	0.52	0.85	1.00	0.29	0.20	0.56	1.46	0.60	0.44	0.37	1.20	8.95

CROOK, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1890	......	......	0.01	2.66	0.77	1.93	0.93	0.85k	0.00	......	......	......	....

DEER TRAIL, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	......	......	T	....
1890	0.30	0.30	T	1.20	T	0.74	2.50	......	0.00	......	......	......	....
Means	......	......	......	......	......	......	......	......	......	......	......	......	....

DELTA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	T	1.79	2.15	0.67	....
1889	0.41	0.48	0.20	0.40	0.03	0.00	0.75	0.61	1.30	0.57	0.95	3.15	8.85
1890	0.80	0.85	0.83	0.98	0.45	0.07e	0.79e	1.59	0.48	......	......	......	....
Means	0.60	0.66	0.52	0.69	0.24	0.04	0.77	1.10	0.59	1.18	1.55	1.91	9.85

DENVER, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	......	......	......	......	......	......	......	......	......	......	......	0.34	....
1870	1.80	1.70	0.70	2.80	0.34	0.52	0.51	0.12	2.85	0.68	0.54	0.73	13.29
1871	0.46	0.23	1.81	1.01	2.56	0.05	0.51	0.27	1.18	0.40	3.10	0.77	12.35
1872	0.55	0.22	1.71	2.09	3.74	2.07	2.69	1.75	1.57	0.68	0.69	0.29	18.05
1873	0.13	0.24	0.22	2.43	0.75	2.24	2.00	1.41	0.89	0.73	0.16	0.61	11.81
1874	0.84	0.53	0.49	1.70	2.43	1.21	3.35	0.68	1.34	0.64	0.08	0.17	13.46
1875	0.38	0.60	0.39	2.24	1.94	0.43	4.32	1.97	2.89	0.22	1.28	0.59	17.25
1876	0.21	0.11	1.80	1.22	8.57	1.10	1.16	2.03	0.60	0.12	1.50	1.70	20.12
1877	1.90	0.40	1.40	2.77	2.30	1.93	0.23	1.30	0.38	2.15	0.73	0.79	16.28
1878	0.10	0.48	1.82	0.05	2.90	2.78	1.38	2.25	1.23	0.80	0.67	1.05	15.51
1879	0.40	0.39	1.00	2.62	3.36	0.32	0.61	1.38	0.02	0.19	0.21	0.33	10.86
1880	0.38	0.32	0.21	0.31	1.11	1.22	1.38	1.46	0.89	1.37	0.83	0.10	9.58
1881	0.49	1.22	0.87	0.50	2.21	0.09	2.50	2.33	0.57	0.32	1.68	0.00	12.78
1882	0.57	0.20	0.20	1.47	2.98	4.96	0.66	1.20	0.06	0.75	0.71	0.73	14.49
1883	2.35	0.45	0.21	3.10	4.30	0.85	2.27	0.75	1.08	1.49	0.32	2.32	19.49
1884	0.22	0.86	0.93	3.33	4.61	1.47	0.65	1.71	0.13	0.21	0.19	0.76	15.07
1885	0.41	0.75	0.97	4.94	2.13	0.66	1.33	1.18	1.22	0.73	0.55	1.08	15.95
1886	0.62	0.72	2.36	2.79	0.09	2.26	0.50	1.62	0.98	0.33	1.93	0.87	15.07
1887	0.67	0.30	0.23	2.16	1.13	0.53	2.49	2.68	0.97	0.97	0.22	0.14	12.49
1888	0.11	0.37	1.15	1.71	2.66	0.29	0.41	1.51	0.11	0.77	0.33	0.09	9.51
1889	0.50	0.70	0.40	1.34	3.44	1.88	2.94	0.33	0.28	2.11	0.53	0.30	14.75
1890	0.18	0.46	0.35	2.50	2.01	T	0.79	1.89	0.17	......	......	......	....
Means	0.63	0.54	0.92	2.07	2.61	1.34	1.60	1.40	0.96	0.78	0.81	0.66	14.32

DURANGO, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	4.20	2.29	1.44	......	....
1887	0.46	......	......	......	......	......	......	......	......	......	......	......	....
1889	1.70	1.60?	2.30?	1.00	0.60	1.30	1.90	1.40	1.30	3.10	1.97	4.18	22.35
1890	1.90	0.46	1.80	2.30	0.00	0.40	0.30	......	......	......	......	......	....
Means	1.35	1.03	2.05	1.65	0.30	0.57	0.73	1.40	2.75	2.70	1.70	2.09	18.32

Monthly and annual precipitation at stations in Colorado—Continued.

EAGLE FARM (NEAR PUEBLO), COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	1.05	1.12	5.50	0.96	0.31	......
1890	0.20	0.23	0.55	4.40	1.73	0.90	1.18	3.37	0.58	......	......	......	......
Means	0.20	0.23	0.55	4.40	1.73	0.90	1.18	2.21	0.65	5.50	0.96	0.31	18.82

ELKHORN, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	1.68	0.57	2.65	0.40	0.42	......
1890	......	......	0.91	......	......	0.03	1.60	2.23	0.37	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

FIRST VIEW, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	1.90	1.05	2.92	......	......	......	1.35	0.25	[0.05]	......
1890	0.05	0.15	T	1.73	0.97	1.60	3.23	1.92	0.98	......	......	......	......
Means	0.05	0.15	T	1.82	1.01	2.92	3.23	1.92	0.98	1.35	0.25	[0.05]	13.73

FOUNTAIN, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	......	......	0.19	0.30	......
1872	......	0.10	0.70	1.12	......	......	5.65	1.23	0.02	......	......	0.03	......
1873	[0.00]	0.04	0.04	0.90	1.60	[2.60]	2.13	0.06	1.20	0.50	2.50	[0.06]	[11.63]
1874	......	......	......	3.60	1.03	0.16	0.12	......	......	0.02	0.15	0.40	......
1875	0.45	0.63	......	......	......	......	......	......	......	......	......	......	......
Means	0.22	0.26	0.37	1.87	1.32	1.38	2.63	0.64	0.61	0.26	0.95	0.20	10.71

FRASER, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	1.05	1.94	1.26	0.61	1.33	[0.60]	0.44	2.65	1.88	......
1890	1.40	2.55	3.68	3.50	......	......	......	......	......	......	......	......	......
Means	1.40	2.55	3.68	2.28	1.94	1.26	0.61	1.33	[0.60]	0.44	2.65	1.88	[20.62]

FRUITA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	......	......	0.82	......
1890	0.87	0.93	0.62	0.30	0.09	T	0.87	0.74	0.87	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

GARLAND, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1858	......	......	......	......	......	......	......	......	......	1.22	0.68	0.15	......
1859	0.00	0.15	0.27	0.19	0.32	1.32	2.72	4.75	0.68	0.55	0.20	0.20	11.35
1860	0.20	0.08	0.53	0.33	0.00	0.72	2.61	0.77	0.85	0.25	0.24	0.04	6.62
1861	0.03	0.04	0.87	0.25	1.01	1.07	0.74	0.30	0.93	0.13	0.06	0.01	5.44
1862	0.24	0.02	0.16	0.40	0.24	0.41	1.26	1.46	1.78	0.00	0.22	0.14	6.33
1863	[0.54]	0.84	0.06	0.00	0.22	1.07	0.07	0.02	0.03	0.13	0.21	0.24	[3.43]
1864	......	......	......	......	......	......	0.06	......	......	......	......	......	......
1866	......	......	......	......	......	......	......	......	0.79	0.35	0.08	0.13	......
1867	0.06	0.15	0.12	0.89	0.21	0.01	0.36	0.29	0.26	0.02	0.06	[0.72]	[3.15]
1868	0.16	......	0.12	......	......	0.01	7.19	3.26	1.80	0.42	0.03	4.01	......
1869	0.65	0.90	0.28	0.36	2.30	0.07†	1.28	1.03	2.55	0.16	0.14	3.00	12.72
1870*	0.65	1.05	0.85	7.57	0.60	6.65	7.30	7.50	0.90	1.30	0.15	3.35	37.87
1871*	1.20	1.45	2.80	2.45	1.45	0.25	1.00	1.25	2.90	1.40	7.10	1.75	25.00

* The amounts for 1870–'72 seem to be unreliable.

Monthly and annual precipitation at stations in Colorado—Continued.

GARLAND, FORT, COLO.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872*	2.25	2.75	3.65	2.78	6.25	7.75	10.30	5.68	0.83	0.10	0.00	0.00	42.34
1873	0.00	2.25	0.00	1.75	0.00	1.58	0.80	0.48	0.18	0.50	0.01	0.20	7.75
1874	0.50	2.80	0.50	0.15	0.08	0.20	1.72	1.12	2.05	1.23	0.25	0.50	11.10
1875	1.50	1.30	2.50	0.15	2.23	0.15	[2.41]	1.00	2.50	0.00	0.50	0.58	[14.82]
1876	0.22	0.22	1.06	0.72	0.16	0.18	1.18	1.56	1.16	0.48	0.24	0.26	7.44
1877	0.34	0.34	0.06	0.80	0.35	2.42	1.89	0.00	0.60	0.70	0.48	0.14	8.12
1878	0.20	0.64	0.24	0.00	......	......	......	2.00	0.50	0.08	1.02	0.32	......
1879	0.18	0.40	0.26	1.48	0.40	0.08	2.44	1.74	0.86	0.76	0.48	0.62	9.70
1880	0.46	0.32	0.48	0.52	0.54	0.18	1.30	1.52	1.02	0.64	0.66	0.18	7.82
1881	0.70	0.46	0.48	0.56	0.98	0.22	1.88	2.42	0.95	1.16	0.56	0.10	10.47
1882	0.92	0.22	0.16	0.60	1.64	0.90	1.14	1.28	0.42	0.30	0.36	0.20	8.14
1883	0.90	0.30	0.50	0.60	1.48	0.84	2.50	3.40	0.80	0.28	[0.05]	[0.50]	[12.15]
Means	0.54	0.79	0.72	1.07	1.03	1.32	2.41	1.95	1.11	0.51	0.57	0.72	12.74

* The amounts for 1870–'72 seem to be unreliable.

GEORGETOWN, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	......	......	......	0.75	......	0.15	......
1879	0.11	0.20	1.30	0.60	0.20	......	1.20	......	......	......	......	......	......
1886	......	......	......	......	......	......	......	1.40	1.01	0.68	0.85	1.01	......
1887	1.07	0.11	0.60	2.11	1.17	0.35	2.60	2.21	0.84	0.47	0.32	0.86	12.71
1888	0.36	0.39	0.48	0.98	2.83	0.96	2.82	1.96	0.07	0.98	0.70	0.11	12.64
1889	0.19	0.45	0.45	0.91	3.45	1.50	1.71	1.31	0.90	1.59	1.23	0.70	14.39
1890	0.35	0.82	0.86	1.84	1.12	0.31	1.75	2.50	0.79	......	......	......	......
Means	0.42	0.39	0.74	1.29	1.75	0.78	2.02	1.88	0.72	0.89	0.78	0.57	12.23

GLENWOOD SPRINGS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	0.34	1.28	......	1.23	2.70	0.22	1.72	2.22	1.97	......
1889	1.24	1.50	1.00	0.54	1.06	0.54	0.51	2.44	0.94	1.53	2.42	3.87	17.59
1890	0.89	......	......	......	......	......	......	......	......	......	......	......	......
Means	1.06	1.50	1.00	0.44	1.17	0.54	0.87	2.57	0.58	1.62	2.32	2.92	16.59

GOLDEN CITY, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	......	......	......	......	5.40	3.50	3.94	0.50	2.20	......	......	......	......
1871	0.70	1.02	1.40	2.20	2.80	0.70	0.80	0.40	......	......	......	......	......
1872	......	......	......	......	4.91	1.21	0.90	......	0.12	2.12	0.60	......	......
1873	......	......	0.41	2.20	1.12	3.70	0.80	1.80	2.92	......	......	0.55	......
1874	0.80	1.13	0.90	1.82	......	......	......	......	......	0.00	0.40	......	......
1875	......	......	......	......	......	......	......	......	......	......	......	0.55	......
1876	0.50	1.21	3.72	1.68	6.09	0.99	1.33	0.75	0.93	0.30	0.97	......	......
1877	......	0.51	0.88	5.30	2.58	2.37	......	......	......	......	......	0.00	......
1883	......	......	......	......	......	......	......	......	......	......	......	1.00	......
1884	0.30	0.95	......	......	......	......	......	......	......	......	......	......	......
1886	......	......	......	......	......	......	......	......	1.15	......	2.82	......	......
1887	......	......	......	......	0.50	......	......	2.12	0.46	......	......	......	......
Means	0.58	0.96	1.46	2.64	3.34	2.08	1.55	1.11	1.30	0.81	1.20	0.52	17.55

GRAND JUNCTION, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	1.74	......	......	1.25	1.62	0.18	......	......	......	......
1887	......	......	......	......	0.34	0.20	1.60	1.48	1.93	1.13	1.09	0.88	......
1888	0.98	0.39	0.87	0.58	......	......	......	......	......	......	......	......	......
Means	0.98	0.39	0.87	1.16	0.34	0.20	1.42	1.55	1.06	1.13	1.09	0.88	11.07

Monthly and annual precipitation at stations in Colorado—Continued.

GREELEY, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	......	......	......	......	......	......	......	......	......	......	0.17	0.07	......
1888	0.05	0.30	0.57	......	......	......	1.29	1.77	......	0.52	4.80	0.06	......
1889	0.30	0.30	0.58	1.95	2.74	3.12	1.90	1.09	0.25	1.92	0.21	0.22	14.58
1890	0.10	0.25	0.36	2.92	1.21	0.14	......	1.67	......	......	......	......	......
Means	0.15	0.28	0.50	2.44	1.98	1.63	1.60	1.51	0.25	1.22	1.73	0.12	13.41

GUNNISON, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	......	......	1.20	T	......	......	......	......	......	......	......	......	......
1888	......	......	......	......	......	......	3.28	1.17	0.13	0.73	0.26	0.00	......
1889	0.29	0.02	0.05	3.10	0.12	0.16	0.10	0.82	0.48	T	3.60	1.28	10.02
1890	......	......	0.26	1.70	0.00	0.13	......	......	0.24	......	......	......	......
Means	0.29	0.02	0.50	1.60	0.06	0.14	1.69	1.00	0.30	0.36	1.93	0.64	8.53

HARDIN, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	0.30	1.47	0.30	0.65	......
1890	0.18	0.05	0.05	2.43	0.96	0.18	1.12	3.80	......	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	11.49

HERMOSA (ANIMAS VALLEY), COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	0.40	0.80	0.30	2.50	1.10	2.30	0.02	1.40	1.10	......
1876	1.20	1.50	0.50	0.10	0.10	0.20	2.60	3.50	2.70	1.90	0.14	0.03	14.47
1877	0.36	1.25	0.55	1.56	1.68	1.34	1.41	1.15	1.42	1.31	0.25	0.78	13.06
1878	0.39	2.50	0.45	0.20	0.90	1.20	0.80	2.15	2.00	0.30	1.52	1.67	14.08
1879	1.41	1.11	0.28	0.33	0.00	0.06	1.88	1.30	0.03	1.77	2.07	4.28	14.52
1880	1.99	1.48	0.62	0.41	0.10	0.40	3.53	1.89	0.21	2.10	0.90	2.21	15.84
1881	1.27	0.81	1.60	0.50	0.23	0.01	1.78	5.57	0.80	[0.20]	3.14	[0.80]	[16.71]
1882	......	......	......	0.85	0.39	0.67	0.30	1.87	......	......	......	......	......
Means	1.10	1.44	0.67	0.54	0.52	0.52	1.85	2.32	1.35	1.09	1.35	1.55	14.30

HOT SULPHUR SPRINGS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	0.01	2.18	1.62	1.34	1.59	2.06	0.67	......
1875	3.67	0.77	1.38	0.71	1.50	0.35	1.03	1.36	1.43	0.36	2.57	1.09	16.22
1876	0.94	1.86	1.46	......	......	......	......	......	......	......	......	......	......
Means	2.30	1.32	1.42	0.71	1.50	0.18	1.60	1.49	1.38	0.98	2.32	0.88	16.08

HUSTED, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	0.35	3.18	1.82	4.37	0.16	0.33	0.25	......	......
1887	......	0.13	......	......	2.86	1.60	3.56	2.67	1.23	0.53	0.30	0.15	......
1888	0.50	0.15	0.30	1.66	5.33	0.02	1.78	1.35	0.19	0.84	0.22	0.02	12.36
1889	0.54	0.25	0.27	2.17	3.23	1.63	2.59	0.78	0.55	2.03	0.33	0.28	14.65
1890	0.09	0.13	0.57	2.61	1.06	0.61	2.22	4.49	0.19	......	......	......	......
Means	0.38	0.16	0.38	2.15	2.57	1.41	2.39	2.73	0.46	0.93	0.28	0.15	13.99

HUTCHINSON, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	1.11	0.65	1.12	1.60	1.31	0.31	5.04	2.00	3.39	0.27	1.80	1.00	19.60

Monthly and annual precipitation at stations in Colorado—Continued.

IDAHO SPRINGS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	2.39	0.23	0.64	......	......	......
1887	......	......	......	......	0.31	0.52	4.26	3.29	1.27	0.64	0.31	0.43	......
1888	......	......	......	......	4.13	0.67	2.69	2.22	0.23	1.15	0.63	0.05	......
1889	0.22	0.33	0.84	1.14	3.91	1.28	2.63	1.26	0.59	......	0.48	0.46	......
1890	0.30	0.54	......	......	1.53	0.38	......	......	......	......	......	......	......
Means	0.26	0.44	0.84	1.14	2.47	0.71	3.19	2.29	0.58	0.81	0.47	0.31	13.51

JULESBURG, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	5.81	1.33	1.06	1.64	0.10	0.56	......	0.02	......
1889	0.08	0.07	0.72	3.05	2.16	3.90	3.52	1.12	0.35	0.74	0.31	[0.30]	[16.32]
1890	......	......	......	3.07	2.54	1.72	0.68	0.50	0.49	......	......	......	......
Means	0.08	0.07	0.72	3.06	3.50	2.32	1.75	1.09	0.31	0.65	0.31	0.16	14.00

KIRK, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1890	......	0.40	0.35	5.59	2.12	1.37	1.07	2.04	0.00	......	......	......	......

KIT CARSON, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	0.94	0.75	0.75	0.00	1.02	......
1878	0.00	0.22	0.95	0.00	1.32	4.66	1.61	2.64	0.79	0.03	0.20*g*	0.16	12.58
1879	0.43	0.21	0.00	0.12	0.02	0.22	0.75	0.53	0.00	0.00	0.10	0.07	2.45
1880	0.22	......	......	......	......	......	0.00	0.00	......	......	......	......	......
1889	......	......	......	......	......	......	......	......	......	......	0.25	......	......
1890	0.05	0.05	......	0.50	0.40	0.92	1.50	1.50	0.00	......	......	......	......
Means	0.18	0.16	0.48	0.21	0.58	1.93	0.96	1.12	0.38	0.26	0.14	0.42	6.82

LAMAR, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.09	0.64	0.64	3.34	1.77	2.56	2.14	0.83	0.60	2.39	0.40	0.04	15.44
1890	0.20	0.16	0.05	2.14	1.02	1.57	1.62	1.63	0.33	......	......	......	......
Means	0.14	0.40	0.34	2.74	1.40	2.06	1.88	1.23	0.46	2.39	0.40	0.04	13.48

LAS ANIMAS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1881	......	......	......	......	......	......	......	......	......	0.21	0.63	0.04	......
1882	0.08	0.02	0.10	0.98	5.06	2.49	1.69	1.89	T	0.25	0.01	0.08	12.65
1883	0.14	0.52	0.15	0.93	1.50	2.63	0.67	0.65	1.35	0.69	0.21	1.68	11.12
1884	0.26	0.50	1.19	1.05	4.46	2.79	1.75	2.17	0.06	0.43	0.32	0.72	15.70
1885	0.22	0.32	0.36	0.45	0.49	2.14	2.71	3.75	0.99	1.19	0.70	0.91	14.23
1886	0.68	0.13	0.33	2.61	0.25	1.19	4.66	1.17	1.23	0.20	0.23	0.07	12.78
1887	0.13	0.11	0.09	2.55	2.92	1.89	1.09	2.35	0.63	1.10	0.28	0.32	13.46
1888	0.06	0.59	0.64	2.59	0.58	......	......	......	......	......	......	......	......
1889	......	......	......	......	......	......	......	0.06	0.06	1.08	0.11	0.00	......
1890	0.20	0.40	0.00	2.30	1.12	0.05	0.22	0.90	0.00	......	......	......	......
Means	0.22	0.32	0.38	1.69	2.05	2.19	2.10	1.72	0.62	0.64	0.30	0.48	12.71

LA VETA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	......	......	1.48	......
1890	0.00	......	......	......	......	1.13	2.93	2.54	1.25	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

Monthly and annual precipitation at stations in Colorado—Continued.

LEADVILLE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	0.35	1.77	1.06	0.27	1.30	0.68	0.31	......
1889	0.52	0.48	0.68	1.31	2.20	0.66	0.84	1.58	0.53	0.69	1.64	1.67	12.80
1890	0.42	0.68	1.24	0.24	?	?	0.81	0.68	1.20	......	......	......	......
Means	0.47	0.58	0.96	0.78	2.20	0.50	1.14	1.11	0.67	1.00	1.16	0.99	11.56

LE ROY, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	0.37	......	0.10	......
1890	......	......	0.07	2.18	1.03	1.96	......	......	......	......	......	......	......

LEWIS, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1880	3.20	1.90	......	0.10	......	......	......	......	......	......	......	......	......
1881	[2.00]	0.70	0.08	0.40	0.20	T	1.50	3.80	1.40	1.70	3.00	0.05	[14.83]
1882	0.70	0.13	0.50	1.20	0.60	2.00	1.50	1.80	1.00	0.20	1.20	0.10	10.93
1883	0.11	0.50	1.00	0.43	1.97	1.05	2.89	0.91	0.65	2.40	T	2.44	14.35
1884	0.25	3.41	4.24	1.57	1.08	1.24	0.24	2.86	1.15	2.10	[T]	4.30	[22.44]
1885	T	0.44	1.04	2.62	0.70	1.28	1.52	1.78	0.79	0.48	1.76	1.26	13.67
1886	3.91	1.45	0.88	2.74	0.72	0.32	T	3.81	1.62	2.02	1.74	0.26	19.47
1887	0.16	[0.70]	0.40	1.20	0.30	0.38	7.54	2.60	2.62	0.72	1.74	1.12	[19.08]
1888	0.38	0.20	1.40	1.42	0.24	0.02	1.54	1.14	0.42	1.27	1.74	1.19	10.96
1889	1.62	0.80	0.95	0.20	0.40	0.60	3.26	1.07	0.90	2.28	2.05	7.68	21.81
1890	5.20	2.30	1.75	3.13	0.10	0.45	0.96	2.35	1.03	......	......	......	......
Means	1.59	1.10	1.22	1.36	0.63	0.73	2.22	2.20	1.17	1.46	1.47	2.04	17.19

LIVERMORE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	1.33	0.70	3.82	......	0.04	......
1890	......	......	......	2.90	0.62	0.02	1.15	2.34	......	......	......	......	......

LONGMONT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	......	......	......	......	......	......	......	......	......	0.25	......	......	......
1888	......	......	......	1.26	4.11	0.04	1.57	0.54	0.03	1.81	0.36	0.08	......
1889	0.21	0.73	0.41	1.71	3.53	1.68	0.21	0.37	0.63	3.24	0.40	0.04	13.16
1890	0.35*g*	......	......	5.72	......	0.19	0.42	2.75	0.16	......	......	......	......
Means	0.28	0.73	0.41	2.90	3.82	0.64	0.73	1.22	0.27	1.77	0.38	0.06	13.21

LYON, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1862	......	......	......	......	......	2.60	0.67	0.48	1.79	......	......	......	......
1863	......	......	......	......	0.58	......	......	......	......	......	......	......	......
1867	0.32	0.12	0.16	2.09	4.52	1.40	2.53	0.37	0.04	0.00	0.07	0.15	11.77
1868	0.02	0.13	1.87	1.60	0.14	2.09	3.13	1.03	1.00	0.05	0.10	0.00	11.16
1869	......	0.32	0.66	0.28	0.55	1.51	4.08	1.33	0.09	......	0.00	0.04	......
1870	0.14	0.08	0.00	2.04	0.34	0.61	1.46	2.78	4.72	3.75	0.00	0.28	16.20
1871	0.07	0.06	0.38	0.96	1.34	0.63	1.02	1.02	1.60	0.04	0.51	0.04	7.67
1872	0.03	0.60	0.14	1.82	2.24	1.94	6.30	3.05	0.62	0.04	0.10	0.09	16.97
1873	0.04	0.04	0.02	0.30	4.82	1.62	2.84	0.23	1.56	0.04	0.00	0.07	11.58
1874	0.18	0.86	0.68	2.02	5.42	0.11	0.14	2.28	1.18	1.59	T	0.12	14.58
1875	[0.40]	[0.50]	T	0.60	1.35	0.02	3.87	2.84	1.04	0.13	0.10	0.16	[11.01]
1876	[0.20]	0.30	T	0.20	0.74	1.88	2.36	2.78	1.25	0.00	[0.20]	T	[9.91]
1877	[0.70]	0.20	0.13	2.07	1.35	1.38	0.56	2.06	1.78	0.64	0.14	0.69	[11.70]

***Monthly and annual precipitation at stations in Colorado*—Continued.**

LYON, FORT, COLO.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	0.00	[0.50]	0.78	0.42	1.14	4.08	0.77	4.09	0.21	T	1.38	0.10	[13.47]
1879	0.10	0.04	T	0.35	1.30	T	1.33	1.18	0.09	0.00	0.10	[0.05]	[4.54]
1880	[0.01]	0.00	[0.05]	[0.40]	1.09	0.55	3.09	4.92	0.95	1.32	0.42	T	[12.80]
1881	?	......	0.60	0.29	2.78	0.20	0.61	1.58	......	......	......	T	......
1882	......	......	......	0.80	3.40	1.20	0.60	0.40	T	0.20	T	T	......
1883	......	......	......	0.60	1.35	1.69	......	0.24	0.96	0.50	1.50	1.20	......
1884	[0.30]	[0.60]	0.40	1.10	3.11	1.60	2.20	1.70	0.20	0.79	0.20	[0.70]	[12.90]
1885	[0.20]	[0.50]	0.10	0.20	0.20	2.55	3.45	1.85	0.30	0.60	0.20	0.60	[10.75]
1886	......	T	0.28	......	......	......	......	......	......	......	......	......	......
1888	......	......	......	......	......	......	......	......	0.04	0.63	0.14	T	......
1889	0.53	T	0.64	1.19	1.09	1.41	2.62	1.06	0.09	2.46	[0.50]	[0.05]	[11.64]
Means	0.20	0.27	0.36	0.97	1.85	1.38	2.18	1.77	0.93	0.67	0.28	0.21	11.07

MASSACHUSETTS, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1852	......	......	......	......	......	......	......	......	......	1.84	6.34	1.45	......
1853	0.22	0.76	0.94	0.39	1.49	1.11	3.04	1.48	1.25	......	......	......	......
1854	......	......	......	......	3.93	0.24	2.14	2.61	1.53	0.35	......	2.30	......
1855	0.00	0.67	1.47	0.41	0.98	0.86	2.60	......	3.33	0.00	5.27	0.38	......
1856	0.15	2.14	0.35	1.35	0.00	0.55	2.19	3.30	1.55	0.95	0.79	0.55	13.87
1857	0.80	0.52	0.20	1.51	0.75	0.95	0.72	3.98	1.34	1.19	2.03	0.67	14.66
1858	0.54	0.20	0.08	2.11	1.00	0.58	1.36	......	......	......	......	......	......
Means	0.34	0.86	0.61	1.15	1.36	0.72	2.01	2.84	1.80	0.87	3.61	1.07	17.24

MIDDLE BOX ELDER, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	0.39	0.28	3.91	......	0.03	......
1890	......	......	0.42	4.56	1.33	0.04	1.49	......	......	......	......	......	......

MONTE VISTA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	0.76	0.94	0.72	0.28	......	......
1887	0.15	[0.25]	0.44	1.00	[0.30]	0.62	2.06	2.06	0.40	0.02	0.04	1.14	[8.48]
1888	0.50	0.88	0.16	1.46	[0.40]	0.00	0.37	0.71	0.23	1.15	0.35	0.00	[6.21]
1889	0.33	0.00	0.00	0.99	0.16	0.62	1.26	0.41	0.29	0.64	0.23	0.08	5.01
1890	0.00	0.12	0.56	2.13	0.18	T	1.27	0.92	1.30	......	......	......	......
Means	0.24	0.31	0.29	1.40	0.26	0.31	1.24	0.97	0.63	0.63	0.22	0.41	6.91

MONTROSE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	0.22	0.67	1.86	0.86	1.02	1.09	2.23	0.53	0.56	0.50	0.71	......
1886	0.79	0.13	0.49	3.14	0.57	0.01	0.33	1.38	1.06	0.95	0.54	0.50	9.89
1887	0.16	0.24	0.28	1.21	0.07	0.04	1.34	2.12	1.56	1.19	1.08	0.35	9.64
1888	0.45	0.38	0.60	0.42	0.84	0.05	0.51	1.48	0.16	1.66	1.74	0.21	8.50
1889	0.59	0.44	0.05	0.86	0.60	0.28	0.84	0.35	0.80	0.47	0.58	1.34	7.20
1890	0.80	0.78	0.56	1.36	0.16	0.03	......	......	......	......	......	......	......
Means	0.56	0.36	0.44	1.48	0.52	0.24	0.82	1.51	0.82	0.97	0.89	0.62	9.23

MORAINE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	1.57	[0.40]	0.64	......
1890	0.81	0.76	0.71	2.77	[1.30]	1.05	2.42	3.40	0.82	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	16.65

***Monthly and annual precipitation at stations in Colorado*—Continued.**

MORGAN, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	......	......	......	......	......	......	......	......	......	......	......	0.44	....
1867	0.31	......	......	0.00	2.55	0.73	0.52	0.60	0.00	0.19	......	......	....
1868	......	0.29	0.37	0.11	......	......	......	......	......	......	......	......	....
1888	......	1.01	0.08	1.29	......	......	......	......	......	......	......	......	....
1889	......	......	......	......	......	......	......	......	0.32	0.86	[0.35]	[0.25]	....
1890	......	0.03	T	2.35	0.89	0.37	2.94	1.24	0.00k	......	......	......	....
Means	0.31	0.44	0.15	0.94	1.72	0.55	1.73	0.92	0.11	0.52	0.35	0.34	8.08

OURAY, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	0.27	1.54	2.67	0.26	4.06	[4.69]	0.77	....
1889	0.89	0.96	0.57	2.10	[0.20]	......	......	......	......	......	......	......	....
Means	......	......	......	......	......	......	......	......	......	......	......	......	17.95

PALMER LAKE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.62	0.33	0.71	2.94	3.74	2.57	3.00	2.67	1.31	3.18	0.78	0.45	22.30
1890	0.20	1.19	0.90	3.69	1.01	......	......	......	......	......	......	......	....
Means	0.41	0.76	0.80	3.32	2.38	2.57	3.00	2.67	1.31	3.18	0.78	0.45	21.63

PAOLI, CAMP, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	0.87	0.10	0.44	T	......	....
1889	0.14	0.08	0.82	4.61	3.36	3.50	0.68	2.89	0.50	0.95	0.08	[0.20]	17.81
Means	0.14	0.08	0.82	4.61	3.36	3.50	0.68	1.88	0.30	0.70	0.04	[0.20]	16.31

PEYTON, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	1.23	0.70	0.15	0.50	0.14	[0.10]	....
1889	......	......	0.33	1.71	2.62	1.56	2.41	1.26	0.94	......	......	......	....
1890	T	0.35	0.30	2.66	1.15	0.77	0.70	2.89	0.36	......	......	......	....
Means	T	0.35	0.32	2.18	1.88	1.16	1.45	1.62	0.48	0.50	0.14	[0.10]	10.18

PIKE'S PEAK, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873	......	......	......	......	......	......	......	......	......	......	0.30	0.61	....
1874	1.32	1.16	1.21	5.20	2.98	0.58	6.00	3.73	2.31	1.80	0.36	0.22	26.87
1875	0.76	0.50	1.03	0.92	2.08	1.70	8.13	3.52	3.20	0.38	1.54	0.98	24.74
1876	0.85	0.61	2.03	1.04	4.73	2.88	2.20	4.63	1.60	1.45	1.06	0.79	23.87
1877	1.49	1.29	1.53	2.91	2.82	3.36	2.70	2.10	2.69	3.74	0.54	0.41	25.58
1878	0.29	1.45	2.95	3.77	4.32	3.49	5.46	6.12	2.42	0.24	7.81	4.55	42.87
1879	3.71	2.66	2.20	12.15	3.26	0.68	4.21	4.40	0.68	0.76	2.40	2.71	39.82
1880	4.26	3.34	2.79	2.04	2.17	0.79	6.69	4.30	3.87	4.64	4.07	1.69	40.65
1881	2.58	1.47	4.44	4.64	3.71	0.87	6.55	11.29	1.85	1.85	4.76	0.56	44.57
1882	1.78	0.36	2.65	1.79	12.34	3.10	2.13	3.22	0.39	0.40	0.22	0.44	28.82
1883	0.54	0.49	0.61	1.68	2.80	1.76	5.37	2.22	1.76	0.15	0.07	0.72	18.17
1884	0.10	0.76	0.39	0.43	2.90	0.94	0.41	0.25	0.49	0.99	0.12	1.50	9.28
1885	0.61	3.91	0.88	5.39	6.12	1.29	2.67	2.04	1.04	1.53	0.87	4.03	30.48
1886	4.04	0.84	4.72	6.33	0.40	2.44	3.30	3.18	0.71	1.31	1.07	1.17	29.51
1887	0.71	0.46	2.52	4.52	2.00	1.44	6.52	3.84	1.80	0.45	0.90	1.04	26.20
1888	0.26	1.15	1.47	2.09	2.40	1.01	4.16	2.63	0.93	......	......	......	....
Means	1.55	1.36	2.09	3.66	3.67	1.76	4.43	3.83	1.72	1.41	1.74	1.43	28.65

Monthly and annual precipitation at stations in Colorado—Continued.

PLATORO, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	3.25	1.33	2.30	5.00	......	....
1890	......	7.70	4.60	2.25	......	......	5.88	......	......	......	......	......	....

PLATTEVILLE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	6.68	1.45	T	0.07	0.02	....
1889	0.02	0.08	0.09	0.40	0.29	1.26	[1.90]	......	......	......	......	......	[12.26]
Means	0.02	0.08	0.09	0.40	0.29	1.26	1.90	6.68	1.45	T	0.07	0.02	12.26

PUEBLO, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	......	0.16	0.40	1.42	3.23	1.30	......	3.33	0.70	0.10	......	......	....
1888	[0.30]	[0.50]	0.20	2.38	0.69	0.00	1.33	0.64	0.04	0.48	0.59	0.10	[7.25]
1889	0.34	0.24	0.51	1.57	1.40	0.84	0.81	1.60	0.69	1.62	0.72	0.16	10.50
1890	0.12	0.25	0.48	2.08	1.71	0.58	0.56	1.99	0.02	......	......	T	....
Means	0.25	0.29	0.40	1.86	1.76	0.68	0.90	1.89	0.36	0.73	0.66	0.09	9.87

RANCHE (NEAR COMO), COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	1.10	0.55	1.28	3.40	0.18	1.53	4.38	3.77	0.98	0.55	1.68	1.08	20.48
1887	......	......	......	......	0.45	1.16	4.78	3.11	1.12	1.08	1.00	0.52	....
1888	0.33	0.52	1.49	1.24	1.66	1.13	2.84	2.18	0.19	1.45	0.40	0.09	13.52
1889	0.47	0.72	0.41	1.33	2.74	0.68	2.41	1.92	0.47	0.85	1.30	1.06	....
1890	0.34	0.87	1.02	2.47	1.28	0.27	4.85	2.83	1.25	......	......	......	....
Means	0.56	0.66	1.05	2.11	1.26	0.95	3.85	2.76	0.80	0.98	1.10	0.69	16.77

RED CLIFF, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	0.52	1.46	1.26	2.13	0.79	......	......	......	......	......	......	....
1890	......	......	3.11	1.17	1.40	0.76	1.46	2.30	1.71	......	......	......	....
Means	......	0.52	2.28	1.22	1.76	0.78	1.46	2.30	1.71	......	......	......	....

REYNOLDS, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	......	......	......	......	T	......	......	......	......	......	0.40	0.40	....
1869	0.27	0.65	0.50	3.43	3.53	1.30	1.00	2.73	1.49	0.25	0.75	0.07	15.97
1870	1.12	0.97	[1.06]	1.01	[1.69]	0.83	2.93	0.90	1.44	1.22	0.06	0.64	[13.87]
1871	0.40	0.55	0.35	1.17	1.55	0.28	0.61	0.30	2.76	T	6.90	0.02	14.89
1872	1.02	1.27	2.32	11.92	......	......	......	......	......	......	......	......	....
Means	0.70	0.86	1.06	4.38	1.69	0.80	1.51	1.31	1.90	0.49	2.03	0.28	17.01

RIFLE FALLS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.81	0.96	1.12	0.85	1.40	0.31	0.71	1.28	0.89	1.11	1.50	3.44	14.38
1890	0.46	2.66	......	0.46	0.34	......	0.08	......	0.79	......	......	......	....
Means	0.64	1.81	1.12	0.66	0.87	0.31	0.40	1.28	0.84	1.11	1.50	3.44	13.98

Monthly and annual precipitation at stations in Colorado—Continued.

ROCKY FORD, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	......	0.53	0.30	0.01	......
1889	0.36	0.12	0.67	2.14	1.65	0.75	4.50	1.32	0.26	1.68	0.77	0.05	14.27
1890	0.34	0.15	0.15	2.07	0.29	0.77	1.16	0.74	0.08	......	......	......	......
Means	0.35	0.14	0.41	2.10	0.97	0.76	2.83	1.03	0.17	1.60	0.54	0.03	10.93

SAGUACHE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	0.45	0.50	0.45	......	......
1887	0.25	0.01	0.10	1.10	[0.30]	1.02	[4.00]	1.76	1.05	0.40	[0.50]	0.20	[10.69]
1888	0.10	0.00	0.14	0.67	0.61	0.16	0.88	0.79	T	1.05	0.00	0.01	4.41
1889	0.57	0.90	T	1.20	0.20	0.10	0.94	1.40	0.14	0.90	[0.30]	[0.40]	[7.05]
Means	0.31	0.30	0.08	0.99	0.37	0.64	1.94	1.32	0.41	0.71	0.31	0.20	7.58

SAN LUIS EX. STATION, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	0.45	0.35	0.55	1.27	1.23	......
1890	0.10	0.65	0.02	3.49	0.02	0.21	1.27	0.91	1.33	......	......	......	......
Means	0.10	0.65	0.02	3.49	0.02	0.21	1.27	0.45	0.35	0.55	1.27	1.23	9.61

SEDGWICK, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	......	......	......	......	......	......	......	......	......	......	0.06	0.05	......
1868	1.85	4.98	......	......	......	......	......	......	......	......	......	......	......
1869	......	......	1.25	......	......	......	2.06	0.88	......	0.42	......	0.42	......
1870	0.38	0.06	0.92	2.25	2.13	0.26	0.36	3.12	3.00	0.38	0.00	1.53	14.39
1871	0.14	0.26	0.68	2.20	......	......	......	......	......	......	......	......	......
1889	......	......	......	......	......	......	......	......	0.30	0.73	0.05	0.06	......
1890	0.05	0.14	0.05	2.57	0.68	0.87	0.90	0.63	0.00	......	......	......	......
Means	0.60	1.36	0.72	2.34	1.40	0.56	1.11	1.54	1.10	0.51	0.04	0.52	11.80

SHERIDAN LAKE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1890	......	......	T	3.49	1.12	0.52	2.44	1.80	0.93	......	......	......	......

SILVERTON, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	......	......	......	......	......	......	......	......	......	0.40	2.14	1.64	......
1876	1.12	0.51	1.72	0.52	0.10	0.17	0.65	[0.32]	[0.40]	......	......	......	......
1886	......	......	......	......	......	......	......	......	......	0.80	1.59	0.88	......
1887	1.67	1.54	......	......	......	......	......	......	......	......	......	......	......
Means	1.40	1.02	1.72	0.52	0.10	0.17	0.65	0.32	0.40	0.60	1.86	1.26	10.02

SOUTH PUEBLO, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	......	......	......	......	......	......	......	1.01	......	0.05	0.67	......
1873	0.03	0.04	0.17	0.46	1.16	1.11	3.35	0.48	0.51	0.28	[0.10]	[0.30]	[7.99]
1874	0.43	0.23	......	3.30	......	0.20	0.50	......	1.49	0.12	0.23	0.41	......
1875	0.28	1.85	2.05	0.60	[1.90]	0.40	4.50	1.20	3.60	0.20	1.00	0.20	[17.78]
1876	......	2.30	0.55	......	1.15	1.40	......	......	0.31	0.03	0.75	0.86	......
1877	0.20	0.[illegible]0	0.13	3.29	0.70	2.32	2.39	0.75	2.34	0.63	0.00	[0.30]	[13.15]
1878	0.42	0.39	0.68	0.00	0.86	3.15	2.39	0.75	2.34	0.63	0.00	0.11	11.72
1883	......	......	......	......	......	......	......	......	......	0.60	0.00	0.54	......

***Monthly and annual precipitation at stations in Colorado*—Continued.**

SOUTH PUEBLO, COLO.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	0.57	0.72	0.05	3.53	1.60	2.85	0.72	2.35	0.40	T	0.05	0.78	13.62
1885	0.35	0.60	0.40	1.76	1.86	1.27	2.83	4.62	0.82	0.57	T	0.73	15.81
1886	0.55	0.42	0.46	1.71	0.26	1.98	0.39	3.08	......	......	......	......	......
1887	......	0.16	0.40	1.42	3.23	1.30	......	3.33	0.70	0.10	......	......	......
1888	......	......	0.20	2.38	0.69	0.00	......	......	......	......	......	......	......
1889	......	0.24	0.51	1.57	1.40	0.84	0.81	......	......	......	......	......	......
Means	0.35	0.64	0.51	1.73	1.35	1.40	1.99	2.07	1.35	0.32	0.22	0.49	12.42

SPRINGFIELD, COLO.

1888	......	......	......	......	......	2.16	5.55	1.14	0.49	0.67	0.27	[0.02]	......
1889	0.40	0.84	0.42	1.91	1.02	2.43	2.22	0.10	......	......	......	......	......
1890	......	......	......	4.72	......	1.22	1.68	1.49	0.43	......	......	......	......
Means	0.40	0.84	0.42	3.32	1.02	1.94	3.15	0.91	0.46	0.67	0.27	0.02	13.42

STAMFORD, COLO.

1890	0.45	2.00	2.00	3.75	0.70	0.37	0.72	......	0.23	......	......	......	......

SUMMIT, COLO.

1876	......	......	......	......	......	......	......	3.22	2.42	3.18	2.24	1.88	......
1877	2.05	3.31	4.40	5.85	4.15	1.50	3.61	2.44	3.67	4.42	0.92	1.00	37.32
1878	0.70	2.96	5.58	5.12	1.28	2.98	3.72	5.10	1.25	0.30	2.30	2.58	33.87
1879	2.27	1.94	1.05	3.46	0.38	0.05	2.70	1.95	0.76	......	......	......	......
1880	......	......	......	......	......	0.28	3.14	1.64	2.19	3.50	......	......	......
Means	1.67	2.74	3.68	4.81	1.94	1.20	3.29	2.87	2.06	[illegible]	1.82	1.82	30.75

THON, COLO.

1888	[0.30]	[0.35]	0.41	2.05	4.03	0.14	1.87	1.97	0.09	0.65	0.06	0.06	[11.98]
1889	T	0.05	0.35	1.82	2.26	1.81	1.84	2.76	0.93	0.51	0.29	0.13	12.75
1890	0.07	0.14	0.18	1.28	1.80	......	1.44	2.23	0.27	......	......	......	......
Means	0.12	0.18	0.31	1.72	2.70	0.98	1.72	2.32	0.43	0.58	0.18	0.10	11.34

TRINIDAD, COLO.

1877	......	......	......	......	......	......	......	2.41	0.99	3.24	0.14	0.14	......
1878	0.44	2.62	0.07	0.09	2.33	12.82	2.72	5.48	1.81	0.36	3.89	1.85	[34.48]
1879	0.42	0.92	0.07	2.93	2.54	1.99	2.70	2.58	0.31	0.37	0.90	0.03	15.76
1880	0.01	0.14	0.03	0.04	......	1.09	3.75	2.50	2.26	......	......	......	......
Means	0.29	1.23	0.06	1.02	2.44	5.30	3.06	3.24	1.34	1.32	1.64	0.67	21.61

T. S. RANCH CAMP (9 MILES FROM WHITEWATER), COLO.

1887	[0.16]	0.51	1.36	1.51	0.85	0.31	[1.30]	1.83	1.37	0.95	0.65	0.28	[11.08]
1888	0.16	0.20	1.08	0.70	1.97	0.04	1.42	2.48	T	1.10	1.55	0.82	11.32
1889	0.33	0.84	0.38	0.50	0.60	0.14	T	0.52	0.85	1.64	0.69	2.22	8.71
1890	0.55	0.90	1.27	0.38	0.28	.07	0.82	3.12	2.06*d*	......	......	......	......
Means	0.30	0.61	1.02	0.77	0.92	0.14	0.88	1.99	1.07	1.23	0.96	1.11	11.00

Monthly and annual precipitation at stations in Colorado—Continued.

UPPER PINE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	1.56	0.67	2.24	......	0.48	......
1890	......	......	2.74	2.72	1.82	0.30	2.00	1.64	0.00	......	......	......	......
Means	......	......	2.74	2.72	1.82	0.30	2.00	1.60	0.34	2.24	......	0.48	......

VILAS, COLO.

1889	......	......	......	......	......	......	......	......	......	......	T	T	......
1890	0.33	0.11	0.14	3.82	0.86	0.82	1.17	0.69	......	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

VILLA GROVE, COLO.

1889	......	......	......	2.01	1.46	0.00	0.39	1.73	0.49	1.35	[0.30]	[0.50]	......
1890	1.30	0.60	[0.30]	0.08	0.10	......	3.00	0.12	0.08	......	......	......	......
Means	1.30	0.60	0.30	1.04	0.78	0.00	1.70	0.92	0.28	1.35	[0.30]	[0.50]	9.07

WALDEN, COLO.

1887	......	......	......	......	......	......	......	0.32	0.85	......	......	......	......
1888	0.15	1.29	1.05	2.25	1.93	0.30	1.45	1.93	0.07	1.15	[1.50]	0.25	13.12
1889	0.12	0.48	......	......	......	......	......	......	......	......	......	......	......
Means	0.14	0.88	1.05	2.25	1.93	0.30	1.45	1.12	0.46	1.15	[1.50]	0.25	12.48

WATERVILLE, COLO.

1890	......	......	0.88	4.25	0.73	0.86	4.15	5.41	0.40	......	......	......	......

WATKINS, COLO.

1889	......	......	......	......	......	......	......	......	......	......	......	0.25	......
1890	0.35	0.80	0.02	......	0.75	......	......	3.12	0.00	......	......	......	......
Means	0.35	0.80	0.02	......	0.75	......	......	3.12	0.00	......	......	0.25	......

WESTCLIFFE, COLO.

1886	......	......	......	8.00	0.92	1.91	......	......	0.12	......	1.22	1.05	......
1887	0.77	......	......	......	......	......	6.63	......	4.50	......	......	......	......
1889	......	......	......	......	......	......	......	......	......	0.95	1.39	0.05	......
1890	0.12	0.50	0.39	2.32	0.27	0.30	2.92	T	1.05	......	......	......	......
Means	0.44	0.50	0.39	5.16	0.60	1.10	4.78	T	1.89	0.95	1.30	0.55	17.75

Monthly and annual precipitation at stations in Colorado—Continued.

WIGWAM, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	0.13	0.34	1.42	T	0.85	0.55	T	....
1889	0.22	0.35	0.46	1.52	1.91	1.53	0.65	1.08	1.56	1.86	0.40	0.23	11.77
1890	0.30	0.03	0.30	......	......	......	......	......	......	......	......	......	....
Means	0.26	0.19	0.38	1.52	1.91	0.83	0.50	1.25	0.78	1.36	0.48	0.12	9.58

WRAY, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1890	......	......	......	T	4.44	1.42	0.62	0.25	1.09	0.45	......	......	....

YUMA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1890	......	......	0.10	5.30	0.67	0.87	0.63	1.58	0.01	......	......	......	....

APPENDIX No. 47.

MEAN MONTHLY AND ANNUAL TEMPERATURE FOR STATIONS IN COLORADO.

The prefatory note to appendix No. 46 applies also to the temperature tables.

AGATE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	....	....	43.8	....	....	....	....	....	....	47.6	28.5	31.3	....
1890	29.0	26.4	40.9	37.0	53.9	77.0	83.4	....	....	....	....	....	....
Means	29.0	26.4	42.4	37.0	53.9	77.0	83.4	....	....	47.6	28.5	31.3	....

ALMA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	....	....	....	29.3	42.8	49.0	54.4	52.4	44.0	32.5	18.8	21.5	....
1887	13.8	14.6	26.2	30.8	40.6	51.9	....	....	....	....	28.1	13.1	....
1888	[13.7]	19.9	20.7	34.8	37.5	49.8	54.3	49.4	46.1	34.5	23.4	19.9	[33.7]
1889	13.6	15.5	18.2	33.2	36.7	48.8	57.8	52.0	43.0	36.7	....	....	....
1890	....	....	21.6	30.2	39.1	49.9	55.0	52.3	44.9	....	....	....	....
Means	13.7	16.7	21.7	31.7	39.3	49.9	55.4	51.5	44.5	34.6	23.4	18.2	33.4

APISHAPA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	....	....	....	....	....	....	....	....	....	36.7	32.2	41.0	....
1890	27.5	33.6	36.5	47.6	59.0	68.5	72.8	74.6	71.5	....	....	....	....
Means	27.5	33.6	36.5	47.6	59.0	68.5	72.8	74.6	71.5	36.7	32.2	41.0	50.1

ASPEN, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	....	....	....	....	....	....	....	....	....	42.3	....	....	....
1887	....	....	....	41.4	53.1	61.5	63.7	59.7	55.3	44.4	36.0	22.5	....
1888	19.5	27.8	....	42.0	43.5	54.0	60.0	....	54.3	39.3	26.7	20.4	....
1889	13.5	18.7	31.4	41.8	46.6	50.7	59.2	....	....	41.0	22.0	29.3	....
1890	19.1	23.2	28.8	....	....	....	....	....	....	....	....	....	....
Means	17.4	23.2	30.1	41.7	47.7	55.4	61.0	59.7	54.8	41.8	28.2	24.1	40.4

BENNETT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	....	40.2	38.0	57.2	56.6	82.4?	92.4?	....	....	....	....	....	....
1889	....	26.0	35.0	33.1	45.5	66.2	....	....	....	....	33.9	41.5	....
1890	35.2	23.7	30.2	36.2	44.3	57.4	77.0	74.9	56.6	....	....	....	....
Means	35.2	30.0	34.4	42.2	48.8	68.7	84.7	74.9	56.6	....	33.9	41.5	....

BRECKINRIDGE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	....	....	....	....	....	....	....	....	....	32.4	....	....	....
1889	25.0	19.0	29.0	38.0	41.3	48.6	56.4	56.3	47.0	46.8	27.6	33.8	39.1
1890	22.7	27.1	21.2	32.2	41.2	47.6	55.0	53.0	45.2	....	....	....	....
Means	23.8	23.0	25.1	35.1	41.2	48.1	55.7	54.6	46.1	39.6	27.6	33.8	37.8

***Mean monthly and annual temperature at stations in Colorado*—Continued.**

BYERS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889			45.6	52.9	63.6	70.3				50.3	34.6	42.4	
1890	27.5	30.6	39.7	53.2	62.4	83.5	82.5	71.8	66.0				
Means	27.5	30.6	42.6	53.0	63.0	76.9	82.5	71.8	66.0	50.3	34.6	42.4	53.4

CAÑON CITY, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886							73.9	72.2	63.6		38.3	39.4	
1887	34.8	35.2	47.6	50.7	62.4	71.6	70.5	68.9	62.6				
1888	32.4	41.2	40.5	56.3	60.2	76.2	75.4	69.0	66.1	52.1	39.2	39.8	54.0
1889	30.4	35.1	46.4	54.2	60.8	70.0	77.3	75.7	64.3	54.5	33.7	44.4	53.9
1890	33.4	36.8	43.6	52.0	63.0	70.6	75.2	72.2	63.9				
Means	32.8	37.1	44.5	53.3	61.6	72.1	74.5	71.6	64.1	53.3	37.1	41.2	53.6

CASTLE ROCK, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888				50.3							32.8	29.4	
1889	19.6												
1890			37.4	47.4	54.8	64.0	71.8						
Means	19.6		37.4	48.8	54.8	64.0	71.8				32.8	29.4	

CHEYENNE WELLS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889			40.5	50.7	58.8	66.0				54.0	33.4	39.8	
1890	27.5	32.9	34.7	50.8	59.0	70.2	78.4						
Means	27.5	32.9	37.6	50.8	58.9	68.1	78.4			54.0	33.4	39.8	

CLIMAX, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887							49.6	51.6	41.4	33.8	21.9	8.4	
1888	9.7	15.8	15.0	29.5	30.9	45.0	53.4	47.3	45.6	30.4	19.5	15.3	29.8
1889	7.9	9.6	20.0	31.8	34.5	44.2	54.9	51.8	41.8	34.2	22.4	20.4	31.1
1890	11.4	13.0	17.4	25.9	36.0	44.8	52.6	48.9	41.9				
Means	9.7	12.8	17.5	29.1	33.8	44.7	52.6	49.9	42.4	32.8	21.3	14.7	30.1

COLLINS, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872											38.9		
1873	28.9	28.6	44.0	40.2	51.2	67.0	68.6	69.3	58.0	44.4	39.2		
1874	32.1	[26.0]	32.8	36.5	58.5	64.4	71.3	58.3	56.7	52.1	38.9	25.8	[46.1]
1880	31.2	25.6	33.3	47.2	59.0	68.2	71.8	69.9	61.2	47.4	[23.5]	25.2	[47.0]
1881	23.6	31.6	36.7										
1882			42.1	46.0	53.0	62.5	72.3	71.5	60.8	46.8	33.9		
1883	24.0	14.4	30.0			64.0		68.9	60.2	43.4	39.8	33.3	
1884	23.4	28.9	35.0	45.8	58.3					48.7	34.7		
1885	26.5	23.7											
1886										49.7	29.5		
1887			39.6	45.2	56.4	68.1	69.0	64.2	60.3	43.8	35.1	27.4	
1888	20.8	36.7	34.3	54.6	54.0				60.2	48.5	32.3	30.1	
1889	21.3	25.3	41.1	49.8	53.5	62.3	68.3	69.3	57.3	49.6	32.1	37.1	47.2
1890	24.7	30.0	38.0	46.6	56.1		71.2	66.0	58.3				
Means	25.6	27.2	37.0	45.8	55.6	65.4	70.2	67.5	59.3	47.4	31.4	29.8	47.1

Mean monthly and annual temperature at stations in Colorado—Continued.

COLORADO SPRINGS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871	......	......	......	......	......	......	......	......	......	......	......	30.8	......
1872	22.5	32.0	35.4	40.1	56.9	63.7	66.5	66.8	55.9	47.0	30.4	25.4	45.2
1873	26.2	28.6	41.9	39.7	51.6	65.5	68.1	66.3	57.6	43.6	39.2	26.9	46.3
1874	30.3	25.5	34.5	38.5	58.6	68.9	73.2	70.3	56.7	49.9	37.9	28.1	47.7
1875	19.1	29.2	30.4	41.6	57.3	67.9	64.6	65.3	57.9	51.3	37.1	35.4	46.4
1876	28.2	34.9	33.5	46.5	54.9	64.0	72.0	......	......	......	......	......	......
1877	......	......	......	......	......	......	......	......	......	......	30.9	27.7	......
1878	23.9	30.4	[37.5]	47.3	52.5	61.8	70.8	70.2	56.9	47.4	38.1	19.8	[46.4]
1879	23.3	33.6	34.2	......	......	......	......	......	......	......	......	......	......
1883	23.6	22.5	39.6	44.4	54.1	......	......	......	57.5	44.0	38.1	......	......
1884	28.1	26.2	36.4	41.3	49.8	63.3	......	......	......	50.7	36.4	......	......
1885	21.5	30.0	38.6	47.5	52.2	......	......	......	......	......	39.7	......	......
1886	22.0	35.8	34.0	44.7	62.5	64.4	71.8	68.9	59.4	50.6	32.9	33.5	48.4
1887	29.9	31.1	43.4	46.7	57.5	67.0	67.0	66.3	61.1	47.5	38.8	28.5	48.7
1888	26.9	36.1	35.2	51.5	52.4	67.2	70.5	64.9	58.9	46.3	33.1	29.6	47.7
1889	21.0	25.8	39.4	48.4	53.8	62.6	69.8	70.8	58.2	50.0	31.8	40.8	47.7
1890	28.0	32.3	38.6	47.5	55.2	65.1	......	......	......	......	......	......	......
Means	25.2	30.3	37.5	44.7	55.0	65.1	69.4	67.8	58.0	48.0	35.7	29.7	47.2

CRAWFORD, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	21.6	28.0	43.5	52.4	56.6	65.2	72.5	71.0	60.4	51.7	34.7	38.0	49.6
1890	27.6	30.6	34.8	45.3	55.4	61.8	70.0	66.0	56.8	......	......	......	......
Means	24.6	29.3	39.2	48.8	56.0	63.5	71.2	68.5	58.6	51.7	34.7	38.0	48.7

DEER TRAIL, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	39.7	43.8	53.5	63.6	......	......	......	47.0	27.0	34.7	......
1890	23.3	24.9	33.9	41.6	52.6	65.8	75.0	......	52.5	......	......	......	......
Means	23.3	24.9	36.8	42.7	53.0	63.6	......	......	......	47.0	27.0	34.7	......

DELTA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	62.5	47.4	33.4	24.7	......
1889	15.4	24.4	41.7	54.1	61.2	69.2	74.8	71.5	56.8	46.6	27.0	33.8	48.0
1890	28.0	34.6	40.2	50.3	59.8	69.4	76.5	71.3	62.2	......	......	......	......
Means	21.7	29.5	41.0	52.2	60.5	69.3	75.6	71.4	60.5	47.0	30.2	29.2	49.0

DENVER, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	28.9	32.8	31.8	46.9	60.3	67.1	72.7	67.7	59.2	47.3	41.6	22.4	48.2
1871	33.2	37.4	45.8	49.6	64.1	74.2	77.9	75.0	66.4	52.4	34.7	28.9	53.3
1872	23.7	32.7	36.4	45.0	56.9	66.3	68.3	69.1	59.9	50.5	33.6	28.3	47.6
1873	30.4	31.3	44.0	39.7	52.6	67.9	71.2	70.4	59.7	45.7	41.1	22.8	48.1
1874	31.9	25.6	36.2	42.6	60.9	69.0	75.1	72.3	59.1	52.8	42.4	30.1	49.8
1875	16.8	32.5	33.3	43.9	59.2	69.2	67.8	68.6	61.2	54.4	37.8	38.0	48.6
1876	28.2	37.9	34.7	48.8	56.4	65.5	74.2	69.6	61.5	51.7	37.5	28.3	49.5
1877	24.6	35.1	42.8	43.6	55.9	64.5	73.1	70.3	61.7	46.3	35.2	32.8	48.8
1878	26.7	36.5	45.5	49.3	54.1	63.2	73.3	72.4	58.5	49.9	41.6	22.6	49.5
1879	24.2	36.0	46.0	49.7	61.0	68.1	73.7	69.1	62.4	52.3	38.4	28.8	50.8
1880	35.9	28.3	31.2	47.0	57.0	66.7	69.9	69.0	61.0	47.5	22.0	29.9	47.4
1881	26.1	29.7	37.6	52.5	59.0	71.2	75.3	72.6	59.9	50.3	36.1	39.1	50.8
1882	29.7	37.6	43.2	47.4	52.4	64.9	70.9	71.6	62.7	50.5	37.4	35.4	50.3
1883	28.4	22.0	43.8	45.6	54.2	64.9	71.2	71.2	61.7	46.7	42.9	32.5	48.8
1884	31.5	29.9	39.0	43.5	54.3	67.0	74.2	68.0	64.6	55.5	42.1	24.6	49.5
1885	29.1	32.4	38.5	45.7	52.7	63.8	70.3	68.0	61.9	49.3	42.9	36.2	49.2
1886	20.8	38.6	33.5	44.2	61.0	65.3	73.9	71.0	60.4	52.5	33.2	37.1	49.3

***Mean monthly and annual temperature at stations in Colorado*—Continued.**

DENVER, COLO.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	31.3	32.0	45.9	48.7	59.5	69.3	69.0	68.9	63.1	48.2	40.4	28.8	50.4
1888	27.3	38.6	33.4	53.2	53.2	68.4	74.2	68.0	62.8	51.0	37.0	37.2	50.4
1889	27.2	29.6	43.3	51.1	55.5	64.3	72.0	72.8	60.0	51.8	32.4	40.5	50.0
1890	28.2	34.0	41.0	48.0	57.7	67.6							
Means	27.8	32.9	39.5	47.0	57.0	67.1	72.4	70.3	61.4	50.3	37.5	31.2	49.5

DOLLY VARDEN MINE, COLO.

1888								39.2		23.1	15.8		
1889	5.5	5.2	13.4	20.4	25.0	34.4	44.2	42.0	32.9	28.8	[12.0]	[8.5]	[22.7]
Means	5.5	5.2	13.4	20.4	25.0	34.4	44.2	40.6	32.9	26.0	13.9	[8.5]	22.5

DUDLEY, COLO.

1877	16.9	18.3	26.6	25.9	36.3	[44.5]	53.7	51.2	43.7	31.2	21.6	17.3	[32.1]
1878	15.3	18.6	25.9	28.0	37.5								
Means	16.1	18.4	26.2	27.0	36.9	41.5	53.7	51.2	43.7	31.2	21.6	17.3	32.3

DURANGO, COLO.

1886								68.8			27.5	30.6	
1887	26.5												
1890		38.0	40.8	47.8									
Means													

FIRST VIEW, COLO.

1889			39.8	49.4		65.8				52.8	33.1	42.1	
1890	28.5	30.7	41.8	51.0	60.8	73.0	79.6	72.4	62.9				
Means	28.5	30.7	40.8	50.2	60.8	69.4	79.6	72.4	62.9	52.8	33.1	42.1	51.9

FOUNTAIN, COLO.

1871											32.2	33.2	
1872	26.5	33.7	36.5	48.1			68.4	67.9	57.8	48.0	31.5	26.0	
1873	27.0	32.1	43.2	39.2	51.2		71.2	70.2	60.0	47.1			
1874				37.8	63.0	71.3	75.8			54.0	40.4	31.0	
1875	21.0	30.4											
Means	24.8	32.1	39.8	41.7	57.1	71.3	71.8	69.0	58.9	49.7	34.7	30.1	48.4

FRASER, COLO.

1889				37.4	43.9	54.8	56.5	61.8		35.9	12.6	15.8	
1890	7.2	12.8	19.4	31.0									
Means	7.2	12.8	19.4	34.2	43.9	54.8	56.5	61.8		35.9	12.6	15.8	

Mean monthly and annual temperature at stations in Colorado—Continued.

FRUITA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	52.0	33.9	......	......
1890	20.8	33.4	40.8	53.9	66.6	72.2	81.9	75.0	64.2	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

GARLAND, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1858	......	......	......	......	......	......	......	......	56.2	42.2	28.5	9.7	......
1859	7.1	24.6	25.6	38.4	51.5	64.4	66.5	61.8	52.0	42.8	32.7	15.2	40.2
1860	16.1	14.4	34.1	42.1	54.2	63.2	66.8	63.5	56.3	45.8	28.8	24.1	42.4
1861	20.7	28.6	35.5	43.6	56.5	66.0	69.5	65.2	56.8	42.3	35.1	31.0	45.9
1862	29.9	25.2	32.5	40.2	55.2	62.8	68.1	66.3	57.4	47.2	30.0	19.9	44.6
1863	16.6	22.3	38.7	48.4	57.2	63.0	66.1	65.7	54.3	39.8	23.9	27.7	43.6
1864	15.7	24.7	28.4	......	......	......	66.1	......	......	......	......	......	......
1866	......	......	......	......	......	......	......	......	......	53.8	45.6	34.2	......
1867	26.0	26.7	33.6	43.0	54.1	61.7	67.8	67.9	61.6	53.9	46.2	35.0	48.1
1868	19.6	25.4	39.6	42.1	51.3	63.3	68.9	63.6	60.2	48.4	33.5	23.3	44.9
1869	25.0	25.7	40.4	40.8	52.1	61.8	69.0	68.0	56.7	41.9	35.1	11.8	44.0
1870	17.7	27.9	35.1	45.9	56.7	67.1	67.5	66.3	60.1	49.0	41.4	15.7	45.4
1871	19.9	24.0	35.2	41.7	53.8	66.9	68.1	63.9	58.2	41.2	28.3	29.2	44.2
1872	18.4	26.6	32.9	40.9	52.7	60.4	62.8	61.6	50.5	38.2	21.0	18.8	40.4
1873	13.2	15.2	29.4	30.1	45.5	60.8	66.2	63.8	59.2	43.6	32.8	19.9	40.0
1874	19.4	15.3	31.4	34.3	51.1	63.8	68.0	64.2	53.9	44.8	34.6	22.6	42.0
1875	24.2	25.4	27.2	41.3	52.8	61.4	[66.5]	62.8	55.9	48.7	34.5	26.7	[44.0]
1876	22.1	28.9	31.2	44.0	51.5	60.7	67.7	63.6	56.4	44.9	29.0	20.2	43.4
1877	22.9	25.7	40.9	38.3	48.9	60.2	65.4	63.2	53.6	39.8	26.1	18.2	41.9
1878	7.9	17.9	33.9	38.9	......	......	......	61.9	53.3	43.6	31.3	13.9	......
1879	14.4	24.3	40.8	41.6	55.7	60.7	65.4	[6.35]	54.8	44.6	28.3	23.8	[43.2]
1880	21.7	19.4	30.0	38.9	51.9	62.9	62.7	60.9	52.5	38.5	15.9	20.7	39.7
1881	14.2	23.3	28.8	46.3	51.9	64.0	68.7	64.0	57.4	46.0	23.6	25.0	42.8
1882	18.7	20.6	33.5	40.0	47.9	58.9	62.7	61.4	52.2	43.1	27.9	23.2	40.8
1883	15.5	26.9	38.6	39.5	49.7	61.3	64.5	62.0	52.7	40.7	......	......	......
Means	18.6	23.4	33.8	40.9	52.5	62.3	66.6	61.0	55.7	44.4	31.0	22.2	43.0

GOLDEN CITY, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	......	......	......	......	61.0	67.6	73.3	74.7	65.8	......	......	......	......
1871	......	38.2	42.2	45.0	63.7	75.2	76.8	74.9	......	......	......	......	......
1872	......	......	......	......	......	66.4	......	......	......	52.2	......	......	......
1873	......	......	......	41.6	53.5	70.4	72.9	72.6	62.4	......	......	27.4	......
1874	32.3	25.0	29.1	37.6	62.6	70.7	79.4	......	61.1	......	41.2	......	......
1875	......	......	......	......	......	......	......	......	......	......	......	40.8	......
1876	29.6	38.4	33.5	48.3	56.2	63.4	75.1	71.2	65.3	55.6	42.6	[35.6]	[51.2]
1877	......	39.9	48.3	46.4	59.0	66.5	......	......	......	......	......	38.8	......
1883	......	......	......	......	......	......	......	......	......	......	......	35.4	......
1884	32.6	29.9	......	......	......	......	......	......	......	......	......	......	......
Means	31.5	34.3	38.3	43.8	59.3	68.6	75.5	73.4	63.6	53.9	41.9	35.6	51.6

GEORGETOWN, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	......	......	......	......	......	......	......	43.3	......	21.3	......
1879	27.7	31.4	41.4	44.7	54.4	58.4	......	63.8	......	......	......	......	......
1886	......	......	......	......	......	......	......	63.0	54.6	45.6	28.6	31.9	......
1887	23.2	26.5	36.2	38.2	49.2	59.2	59.4	57.5	53.8	43.0	37.4	24.4	42.3
1888	25.5	29.7	30.2	43.9	44.9	57.8	62.4	56.9	56.8	42.6	32.4	31.3	42.9
1889	23.8	27.9	35.2	42.4	45.9	53.9	62.4	62.8	52.0	44.7	29.0	34.5	42.9
1890	26.2	28.2	32.6	39.3	48.3	58.5	62.5	58.8	52.7	......	......	......	......
Means	25.3	28.7	35.1	41.7	48.5	57.6	61.7	61.5	54.0	43.8	31.8	28.7	43.2

Mean monthly and annual temperature at stations in Colorado—Continued.

GLENWOOD SPRINGS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886					64.0	69.4	77.3	74.8	60.5	49.1	29.0	31.4	
1887		30.8											
1888				52.4	55.0		73.3	69.0	65.8	49.2	36.3	29.7	
1889	18.1	25.1	41.9	52.9	53.8	64.5	73.8	71.0	59.3	49.0	28.1	33.3	47.6
1890	24.2												
Means	21.2	28.0	41.9	52.6	57.8	67.0	74.8	71.6	61.9	49.1	31.1	31.5	49.0

GRAND JUNCTION, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884				48.3			76.8	72.0	63.5				
1887					63.1	74.7	76.5	73.4	66.1	49.5	39.4	18.5	
1888	18.8	36.6	39.3	54.9	64.1								
Means	18.8	36.6	39.3	51.6	63.6	74.7	76.6	72.7	64.8	49.5	39.4	18.5	50.5

GREELEY, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887											34.8	24.8	
1888	18.3	37.2	33.1				72.3	65.8		49.2	34.8	30.6	
1889	21.5	27.6	42.4	51.5	57.1	67.3	73.1	73.0	58.8	50.2	33.4	34.9	49.2
1890	22.8	25.8	34.4	46.7	55.6	66.4							
Means	20.9	30.2	36.6	49.1	56.4	66.8	72.7	69.4	58.8	49.7	34.3	30.1	47.9

GUNNISON, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1884	-0.5	12.2	18.5	33.0									
1888								56.2	53.7	41.1	25.6	16.5	
1889	8.1	15.8	34.3	42.4	45.8	55.8	60.2	58.1	50.5	40.5	20.7	24.7	38.1
1890	4.5	20.6	29.8	38.8	49.1	52.7			53.0				
Means	4.0	16.2	27.5	38.1	47.4	54.2	60.2	57.2	52.4	40.8	23.2	20.6	36.8

HERMOSA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875					57.1	64.4	63.4	62.9	59.5	50.1	36.0	26.7	
1876	23.6	28.7	32.1	47.8	54.0	66.6	69.2	66.1	56.9	47.8	36.1	26.5	46.3
1877	26.7	34.6	44.3	44.2	52.6	62.5	70.3	67.3	57.3	46.5	33.8	29.6	47.5
1878	19.6										37.8	18.9	
1879	21.6	31.7	46.1	49.7	58.5	61.8	68.6	67.6	62.5	48.7	33.1	26.0	48.0
1880	22.8	21.1	32.1	43.6	56.6	65.1	65.9	64.3	58.2	47.7	27.6	25.2	44.2
1881	18.3	29.2	33.3	52.5	58.9	69.4	71.2	68.5	59.8	48.1	34.0	25.5	47.4
1882				46.1	55.0	62.9	69.1	66.5					
Means	22.1	29.1	37.6	47.3	56.1	64.7	68.2	66.2	59.0	48.2	34.1	25.5	46.5

HOT SULPHUR SPRINGS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874						66.2	63.3	62.3	50.9	42.7	30.8	15.8	
1875	13.0	12.2		34.4	49.6	56.8	60.5	59.8	56.5	42.0	25.5	12.1	
1876	1.3	15.6	18.8										
Means	7.2	13.9	18.8	34.4	49.6	61.5	61.9	61.0	53.7	42.4	28.2	14.0	37.2

Mean monthly and annual temperature at stations in Colorado—Continued.

HUGO, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	70.3	78.1	75.4	66.7	52.1	30.7	......	....
1889	......	......	43.9	50.6	58.8	68.8	......	......	......	48.4	33.7	37.8	....
1890	29.3	40.0	42.6	50.8	59.8	70.2	......	......	......	......	......	......	....
Means	29.3	40.0	43.2	50.7	59.3	69.6	78.1	75.4	66.7	50.2	32.2	37.8	52.7

HUSTED, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	43.1	58.2	61.3	69.3	......	......	48.3	......	......	....
1887	27.2	28.2	39.6	43.6	53.0	63.2	65.4	......	......	46.0	......	......	....
1888	23.1	35.4	32.6	48.2	52.4	65.2	70.4	65.0	60.0	48.0	39.0	33.0	47.7
1889	21.5	23.5	41.5	49.2	53.5	61.6	66.8	70.6	58.0	48.4	30.5	40.6	47.1
1890	28.1	32.4	39.1	45.8	54.5	64.2	71.2	66.2	58.6	......	......	......	....
Means	25.0	29.9	38.2	46.0	54.3	63.1	68.6	67.3	59.0	47.7	34.8	36.8	47.6

HUTCHINSON, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	18.1	21.9	20.7	30.7	47.7	60.6	57.7	58.0	48.7	41.0	28.6	26.8	38.4

IDAHO SPRINGS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	61.7	68.2	64.2	54.1	45.1	29.8	34.5	....
1887	26.9	29.2	39.6	42.3	53.3	63.4	62.2	59.8	54.7	43.4	37.9	26.5	44.9
1888	......	......	......	......	48.7	55.0	64.0	58.1	54.6	42.5	30.9	31.3	....
1889	23.6	26.2	36.5	44.0	48.6	56.8	57.7	61.1	58.5	[44.5]	32.9	33.5	[43.9]
1890	26.5	33.2	......	......	51.9	58.0	......	......	......	......	......	......	....
Means	25.7	29.5	38.0	43.2	50.6	59.0	63.0	61.6	55.5	43.9	32.9	31.4	44.5

JULESBURG, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	53.8	69.6	75.1	69.0	64.1	47.8	......	......	....
1889	22.8	24.0	40.0	49.7	56.6	66.6	73.1	76.8	59.9	45.5	34.9	[39.8]	[49.1]
1890	......	......	......	52.8	60.2	70.8	79.4	75.0	61.8	......	......	......	....
Means	22.8	24.0	40.0	51.2	54.1	69.0	75.9	73.6	61.9	46.6	34.9	39.8	47.0

KIT CARSON, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	38.1	49.0	......	......	......	......	......	......	34.8	......	....
1890	26.6	37.1	43.5	52.4	65.6	73.6	80.3	78.4	57.6	......	......	......	....
Means	26.6	37.1	40.8	50.7	65.6	73.6	80.3	78.4	57.6	......	34.8	......	....

LAMAR, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	20.8	31.0	46.9	55.6	63.3	72.4	79.1	79.8	65.2	52.4	39.6	40.4	53.9
1890	33.0	35.0	45.0	52.0	63.8	74.5	82.6	76.7	66.7	......	......	......	....
Means	26.9	33.0	46.0	53.8	63.6	73.4	80.8	78.2	66.0	52.4	39.6	40.4	54.5

***Mean monthly and annual temperature at stations in Colorado*—Continued.**

LAS ANIMAS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1882	[23.5]	33.9	43.2	50.0	56.2	69.5	73.9	72.7	65.3	52.2	33.3	28.6	[50.2]
1883	20.4	22.2	40.5	49.1	59.1	69.1	76.2	73.3	63.5	49.4	39.1	32.7	49.6
1884	23.4	24.5	39.0	46.2	56.3	68.1	75.1	70.4	67.4	56.0	38.4	19.5	48.7
1885	16.4	27.7	40.9	53.2	57.3	70.2	75.2	72.5	63.9	49.6	41.9	33.3	50.2
1886	17.9	37.7	38.7	48.2	65.6	69.6	77.2	74.7	64.7	55.2	32.3	29.6	51.0
1887	27.7	32.5	45.4	51.8	63.0	72.5	75.4	74.1	66.9	51.9	39.1	27.6	52.3
1888	24.6	37.9	37.6	56.7	59.5	......	......	......	......	......	......	......	......
1889	......	......	......	......	......	......	......	64.7	64.7	57.1	29.4	41.9	......
1890	30.0	34.2	42.8	51.7	62.6	72.2	79.1	74.2	65.1	......	......	......	......
Means	23.0	31.3	41.0	50.9	60.0	70.2	76.0	72.1	65.2	53.1	36.2	30.5	50.8

LEADVILLE, COLO.

1888	......	......	......	......	......	51.8	56.1	51.0	48.2	35.6	25.3	20.4	......
1889	13.9	16.5	27.1	35.6	38.7	48.0	57.1	54.9	46.0	38.1	23.3	26.0	35.4
1890	14.8	17.2	21.8	26.8	33.8	43.8	54.6	52.2	45.7	......	......	......	......
Means	14.4	16.8	24.4	31.2	36.2	47.9	55.9	52.7	46.6	36.8	24.3	23.2	34.2

LE ROY, COLO.

1889	......	......	......	......	......	......	......	......	......	......	......	38.0	......
1890	......	......	39.9	48.5	59.7	65.1	89.8	70.8	62.7	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

LEWIS, FORT, COLO.

1880	15.7	14.1	26.6	......	43.0	63.0	65.9	62.8	......	......	......	......	......
1881	[20.1]	25.2	30.5	48.7	54.7	64.6	70.3	67.2	55.1	45.9	27.1	30.7	[45.4]
1882	23.6	26.4	35.3	41.5	50.6	60.8	69.6	67.0	55.8	47.1	32.1	27.2	44.8
1883	17.7	29.0	38.1	38.9	50.3	62.5	65.5	63.6	56.6	41.2	33.0	28.1	43.7
1884	22.3	23.2	28.7	35.0	48.4	58.6	66.5	60.2	52.9	46.3	35.1	25.6	41.9
1885	17.5	26.7	34.0	40.0	48.9	55.9	65.8	64.1	55.4	47.9	34.7	29.4	43.4
1886	21.4	28.2	27.2	39.6	57.1	61.7	69.7	64.9	55.0	45.3	27.6	30.1	44.0
1887	24.5	25.8	39.4	43.3	53.3	63.3	65.9	62.9	57.2	46.6	36.2	15.9	44.5
1888	20.1	29.3	28.9	45.6	48.8	59.7	66.3	62.0	60.6	46.6	33.4	26.6	44.0
1889	17.8	21.4	34.8	47.2	50.1	59.1	65.8	65.7	53.8	47.4	29.6	31.3	43.7
1890	20.4	27.9	33.3	......	......	55.8	72.2	64.2	55.3	......	......	......	......
Means	20.1	25.2	32.4	42.2	50.5	60.5	67.1	64.0	55.8	46.0	32.1	27.2	43.6

LONGMONT, COLO.

1886	......	......	......	......	......	......	......	......	58.9	50.2	27.0	29.0	......
1887	26.9	29.0	43.4	48.5	60.1	67.6	68.6	61.6	65.5	43.6	32.8	23.5	47.6
1888	19.1	30.5	31.3	53.8	53.2	68.3	72.1	66.3	59.7	49.4	......	......	......
1889	21.0	25.3	40.7	50.5	55.0	62.3	72.2	72.8	56.6	50.0	31.9	39.8	48.2
1890	24.1	......	......	49.0	......	68.0	75.8	69.4	62.4	......	......	......	......
Means	22.8	28.3	38.5	50.4	56.1	66.6	72.2	67.5	60.6	48.3	30.6	31.0	47.7

LYON, FORT, COLO.

1862	......	......	......	......	......	75.2	79.4	75.5	64.1	......	......	......	......
1863	......	......	......	......	68.3	......	......	......	......	......	......	......	......
1867	31.0	39.1	29.6	54.4	61.4	77.4	80.7	80.2	72.0	56.2	44.6	39.6	55.5
1868	26.8	38.7	46.5	54.0	65.1	76.6	82.8	72.5	55.9	46.8	29.3	21.4	51.4
1869	26.8	24.7	41.0	46.0	59.8	70.4	77.4	78.0	63.7	42.2	35.2	20.8	48.8

***Mean monthly and annual temperature at stations in Colorado*—Continued.**

LYON, FORT, COLO.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	25.0	33.1	37.1	53.1	67.4	71.8	78.4	72.4	63.6	49.8	44.3	21.7	51.5
1871	32.3	35.6	43.4	53.3	65.3	79.0	81.4	77.2	67.6	57.8	31.3	28.4	54.4
1872	24.4	35.2	39.8	52.6	62.4	72.5	74.5	74.3	65.6	53.0	32.4	24.8	51.0
1873	26.6	31.2	45.4	46.7	58.9	73.4	76.8	77.7	65.5	50.8	40.2	28.6	51.8
1874	27.8	27.0	40.0	43.9	63.7	75.0	82.7	81.1	64.0	56.4	40.3	31.6	52.8
1875	13.0	31.1	41.5	47.8	65.8	75.5	72.3	75.0	66.1	56.6	39.0	36.6	51.7
1876	29.7	37.9	37.8	53.3	62.9	72.2	80.7	77.1	67.6	53.8	33.2	27.3	52.8
1877	15.8	34.2	45.0	48.0	63.2	69.4	78.8	76.7	66.4	49.3	36.1	29.5	51.0
1878	26.3	35.5	46.6	54.8	61.8	69.3	81.7	80.2	65.3	53.5	40.9	17.7	52.8
1879	15.2	33.5	47.3	53.9	68.8	76.3	81.6	76.1	65.1	56.2	39.6	27.9	53.5
1880	32.3	31.5	38.1	53.3	67.4	78.6	76.7	74.7	65.3	50.2	19.6	23.3	50.9
1881	17.5	25.8	41.0	55.9	63.7	79.3	81.9	81.2	[69.0]	[54.0]	33.3	32.9	[53.0]
1882	27.3	34.8	44.5	52.2	59.4	72.7	77.8	76.2	69.1	55.0	36.1	29.4	52.9
1883	21.1	23.1	41.8	51.5	62.0	71.9	[76.5]	75.6	66.1	52.3	41.2	33.0	[51.3]
1884	24.2	26.6	40.8	49.1	59.9	71.3	79.1	73.8	69.5	57.2	40.1	20.4	51.0
1885	17.0	29.3	43.0	57.1	60.9	74.6	79.2	76.8	67.8	51.9	43.1	34.5	52.9
1886	18.3	38.8	40.6	......	......	......	......	......	......	......	......	......	......
1888	......	......	......	......	......	......	......	......	66.5	52.9	37.8	34.9	......
1889	19.5	28.5	43.5	54.3	60.1	69.0	76.6	77.1	65.4	53.8	......	......	......
Means	23.7	32.2	41.6	51.8	63.2	73.9	78.9	76.6	66.0	52.8	36.9	28.2	52.1

MAGNOLIA, COLO.

1889	......	......	42.3	56.0	......	......	......	......	......	52.2	29.6	40.4	......
1890	27.4	29.1	33.2	41.7	52.8	66.4	71.6	69.5	66.7	......	......	......	......
Means	27.4	29.1	37.8	48.8	52.8	66.4	71.6	69.5	66.7	52.2	29.6	40.4	49.4

MASSACHUSETTS, FORT, COLO.

1852	......	......	......	......	......	......	......	......	48.7	40.1	24.4	19.2	......
1853	20.3	18.8	31.3	45.2	47.7	58.9	62.9	61.6	53.7	41.0	25.7	16.3	[40.3]
1854	......	......	......	......	49.4	57.5	64.1	62.8	52.7	47.9	29.8	21.4	......
1855	19.1	25.6	33.2	44.4	51.2	59.0	60.6	62.8	54.0	40.1	27.3	16.2	[41.1]
1856	11.0	17.8	29.4	42.6	52.1	66.5	66.6	62.0	53.0	38.2	23.5	12.7	39.6
1857	18.4	22.3	36.5	40.1	45.5	61.0	66.0	63.7	56.4	42.0	24.1	13.4	40.8
1858	13.3	20.1	30.3	41.2	49.2	61.6	67.9	62.8	......	......	......	......	......
Means	16.4	20.9	32.1	42.7	49.2	60.8	64.7	62.6	53.1	41.6	25.8	16.5	40.5

MINNEAPOLIS, COLO.

1887	......	......	......	......	......	......	76.6	76.6	69.6	52.5	38.5	27.1	......
1888	19.1	32.4	33.7	50.8	56.2	72.1	75.8	......	......	......	......	......	......
Means	19.1	32.4	33.7	50.8	56.2	72.1	76.2	76.6	69.6	52.5	38.5	27.1	50.4

MONTE VISTA, COLO.

1886	......	......	......	......	......	......	......	64.8	54.1	42.7	24.4	19.1	......
1887	14.6	22.7	36.6	42.3	[53.9]	60.6	63.9	61.3	56.7	45.7	31.1	14.3	[42.1]
1888	15.1	26.9	30.2	45.6	[55.0]	61.4	65.6	62.3	57.0	42.6	30.2	16.8	[42.4]
1889	10.0	23.4	34.6	35.8	51.9	58.2	66.1	61.2	55.3	45.3	28.6	17.9	40.1
1890	18.0	27.4	33.4	41.4	54.8	61.0	66.5	63.0	54.8	......	......	......	......
Means	14.4	22.6	33.7	41.3	53.9	60.3	65.5	63.1	55.6	44.1	28.6	17.0	41.6

***Mean monthly and annual temperature at stations in Colorado*—Continued.**

MONTROSE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885		29.9	39.3	45.7	53.7	62.1	69.2	65.8	59.8	48.0	37.3	27.5	
1886	23.4	32.4	33.1	43.4	59.8	66.8	73.9	70.1	59.7	48.5	28.7	32.1	47.7
1887	27.5	33.6	43.5	46.3	58.7	69.4	70.4	67.2	60.9	47.9	37.2	20.8	48.6
1888	21.7	34.9	37.3	53.0	55.1	67.8	72.8	66.8	65.0	50.0	36.9	28.6	49.2
1889	20.2	27.5	43.5	52.8	57.2	65.3	73.0	72.1	60.5	52.2	33.2	38.4	49.7
1890	26.6	34.2	39.8	49.4	59.6	66.0							
Means	23.9	32.1	39.4	48.4	57.4	66.2	71.9	68.4	61.2	49.3	34.7	29.5	48.5

MORGAN, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866												24.2	
1867	20.3	33.9	21.1	47.0	58.2	71.0	79.0	79.9	70.6	57.4	44.5	34.4	51.4
1868	19.3	33.5	40.0	47.4									
1888	10.4	31.9	28.8	50.6									
Means	16.7	33.1	30.0	48.3	58.2	71.0	79.0	79.9	70.6	57.4	44.5	29.3	51.5

PALMER LAKE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887										43.2	36.0		
1888		30.2	29.5										
1889	27.5	27.8	39.6	46.8	49.6	[57.0]	67.4	67.6	55.7	47.9	31.4	37.6	[46.3]
1890	28.4	29.7	36.0	43.4	52.1								
Means	28.0	29.2	35.0	45.1	50.8	57.0	67.4	67.6	55.7	45.6	33.7	37.6	46.1

PANDORA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886						54.5	60.3	57.0	48.5	40.4	22.9	22.6	
1887				35.6	46.6	54.2	54.7			39.1	27.7	11.2	
1888	19.6	30.4	31.3	42.9	43.0	52.2	61.7						
Means	19.6	30.4	31.3	39.2	44.8	53.6	58.9	57.0	48.5	39.8	25.3	16.9	38.8

PAOLI, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888								70.9		46.9	32.8	29.6	
1889	22.8	24.8	39.8	50.4	56.2	67.1	75.6	74.4	59.7	49.6	31.4	[39.0]	[49.2]
Means	22.8	24.8	39.8	50.4	56.2	67.1	75.6	72.6	59.7	48.2	32.1	34.3	48.6

PIKE'S PEAK, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873											15.8	4.6	
1874	6.2	—0.3	4.9	7.8	23.4	34.4	41.6	39.0	29.6	21.6	11.7	7.0	18.9
1875	0.7	0.7	—0.4	11.4	23.3	34.7	35.1	35.7	32.2	25.2	10.7	9.8	18.3
1876	2.5	4.9	4.6	14.9	21.6	30.8	41.7	38.4	31.8	21.5	10.9	4.9	19.0
1877	5.4	7.9	12.0	9.5	18.4	28.1	39.1	39.4	31.1	17.0	5.9	6.7	18.4
1878	1.2	2.4	9.9	12.3	19.8	30.0	41.3	42.4	39.4	20.7	13.3	—0.3	19.4
1879	4.8	6.9	16.0	16.9	25.7	33.2	41.6	39.0	36.1	26.2	12.3	4.1	21.9
1880	6.5	—0.6	5.0	12.7	23.7	36.3	38.2	37.0	30.4	18.3	0.4	6.8	17.9
1881	—0.4	4.8	4.7	18.1	25.4	39.9	43.3	41.0	31.6	23.4	7.2	9.0	20.7
1882	2.3	5.8	8.2	13.5	19.9	30.3	38.3	38.0	29.4	19.8	13.3	6.7	18.8
1883	—1.9	4.4	13.0	12.1	19.5	31.3	39.1	38.8	30.2	16.4	13.8	8.1	18.7
1884	2.4	2.6	4.9	8.5	20.4	30.4	39.8	35.6	32.0	24.4	13.3	5.4	18.3
1885	1.4	1.9	9.3	15.8	21.1	29.8	39.2	37.1	31.0	21.1	13.8	8.8	19.2
1886	2.0	6.2	4.0	12.1	27.1	33.0	42.5	40.5	32.6	22.1	7.1	8.6	19.8
1887	0.4	4.0	14.6	14.7	26.5	36.3	39.1	38.0	33.4	23.9	18.3	2.2	21.0
1888	4.8	7.0	8.2	20.8	21.3	35.1	43.6	37.6	35.4				
Means	2.6	3.9	7.9	13.4	22.5	32.9	40.2	38.5	32.4	21.6	11.2	6.2	19.4

Mean monthly and annual temperature at stations in Colorado—Continued.

PUEBLO, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	....	....	....	49.6	67.8	68.8	76.6	72.9	....	51.9	....	....	....
1887	....	....	46.6	52.0	63.1	....	76.3	70.1	64.5	51.3	....	27.1	....
1888	....	....	37.2	56.3	58.6	73.9	74.8	69.4	63.3	50.6	34.7	32.6	....
Means	....	....	41.9	52.6	63.2	71.4	75.9	70.8	63.9	51.3	34.7	29.8	....

RANCH NEAR COMO, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	16.6	21.6	27.7	34.5	40.1	49.5	56.8	54.2	49.1	40.3	30.6	24.3	37.1
1886	18.0	23.9	22.3	32.2	47.5	52.9	59.4	55.9	48.4	37.6	22.5	24.7	37.1
1887	18.0	19.5	30.4	33.2	44.8	54.5	55.8	53.5	49.9	40.3	32.6	17.0	37.5
1888	19.5	22.4	23.3	37.9	38.9	52.4	57.2	51.7	49.7	36.1	26.0	23.2	36.5
1889	16.0	17.4	28.4	37.0	40.9	49.4	57.6	54.8	46.9	38.4	22.0	22.3	35.9
1890	15.2	19.7	23.4	32.4	42.4	49.9	53.6	51.4	44.5	....	....	....	....
Means	17.2	20.8	25.9	34.5	42.4	51.4	56.7	53.6	48.1	38.5	26.7	22.3	36.5

REYNOLDS, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	....	....	....	....	63.2	76.2	79.9	71.5	62.3	52.6	37.1	29.8	....
1869	30.8	31.1	41.6	48.8	59.8	69.4	76.7	76.7	66.9	50.0	37.8	29.0	51.6
1870	33.7	41.3	41.7	54.7	66.4	71.9	79.7	73.6	64.0	50.3	44.4	22.4	53.7
1871	35.8	38.8	46.0	54.4	68.5	77.8	81.7	78.4	65.7	51.1	34.3	30.5	55.2
1872	25.3	37.3	40.6	54.0	....	....	....	....	....	....	....	....	....
Means	31.4	37.1	42.5	53.0	64.5	73.8	79.5	75.0	64.7	51.0	38.4	27.9	53.2

RIFLE FALLS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	....	24.2	37.5	47.6	50.4	59.9	67.4	67.9	54.6	47.1	27.2	32.7	....
1890	22.0	28.3	....	41.3	52.9	....	67.0	....	....	....	....	....	....
Means	22.0	26.2	37.5	44.4	51.6	59.9	67.2	67.9	54.6	47.1	27.2	32.7	44.9

RIVER BEND, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	....	....	39.4	47.8	59.9	70.4	....	....	....	....	33.9	38.9	....
1890	30.2	33.5	54.9	46.3	57.4	72.1	80.8	69.5	64.1	....	....	....	....
Means	30.2	33.5	47.2	47.0	58.6	70.4	80.8	69.5	64.1	....	33.9	38.9	....

ROCKY FORD, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	....	....	....	....	....	....	....	....	....	56.4	38.5	34.3	....
1889	19.6	28.5	45.4	55.4	62.6	71.2	74.7	73.2	60.2	54.0	32.6	35.0	51.0
1890	21.4	30.0	38.6	48.9	60.1	71.1	77.3	73.2	63.2	....	....	....	....
Means	20.5	29.2	42.0	52.2	61.4	71.2	76.0	73.2	61.7	55.2	35.6	34.6	51.1

SAGUACHE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	....	....	....	....	....	....	....	....	56.4	44.9	26.2	24.1	....
1887	18.9	23.7	38.5	41.5	52.0	62.7	[63.5]	60.5	56.3	45.9	34.9	17.8	[43.0]
1888	16.5	28.4	30.5	46.4	50.2	61.8	65.4	61.2	57.3	44.1	31.0	22.7	43.0
1889	11.0	13.1	36.9	46.8	52.5	58.8	66.6	63.8	54.3	44.5	....	....	....
Means	15.5	21.7	35.3	44.9	51.6	61.1	66.0	61.8	56.1	44.8	30.7	21.5	42.6

***Mean monthly and annual temperature at stations in Colorado*—Continued.**

MONTROSE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885		29.9	39.3	45.7	53.7	62.1	69.2	65.8	59.8	48.0	37.3	27.5	
1886	23.4	32.4	33.1	43.4	59.8	66.8	73.9	70.1	59.7	48.5	28.7	32.1	47.7
1887	27.5	33.6	43.5	46.3	58.7	69.4	70.4	67.2	60.9	47.9	37.2	20.8	48.6
1888	21.7	34.9	37.3	53.0	55.1	67.8	72.8	66.8	65.0	50.0	36.9	28.6	49.2
1889	20.2	27.5	43.5	52.8	57.2	65.3	73.0	72.1	60.5	52.2	33.2	38.4	49.7
1890	26.6	34.2	39.8	49.4	59.6	66.0							
Means	23.9	32.1	39.4	48.4	57.4	66.2	71.9	68.4	61.2	49.3	34.7	29.5	48.5

MORGAN, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866												24.2	
1867	20.3	33.9	21.1	47.0	58.2	71.0	79.0	79.9	70.6	57.4	44.5	34.4	51.4
1868	19.3	33.5	40.0	47.4									
1888	10.4	31.9	28.8	50.6									
Means	16.7	33.1	30.0	48.3	58.2	71.0	79.0	79.9	70.6	57.4	44.5	29.3	51.5

PALMER LAKE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887										43.2	36.0		
1888		30.2	29.5										
1889	27.5	27.8	39.6	46.8	49.6	[57.0]	67.4	67.6	55.7	47.9	31.4	37.6	[46.3]
1890	28.4	29.7	36.0	43.4	52.1								
Means	28.0	29.2	35.0	45.1	50.8	57.0	67.4	67.6	55.7	45.6	33.7	37.6	46.1

PANDORA, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886						54.5	60.3	57.0	48.5	40.4	22.9	22.6	
1887				35.6	46.6	54.2	54.7			39.1	27.7	11.2	
1888	19.6	30.4	31.3	42.9	43.0	52.2	61.7						
Means	19.6	30.4	31.3	39.2	44.8	53.6	58.9	57.0	48.5	39.8	25.3	16.9	38.8

PAOLI, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888								70.9		46.9	32.8	29.6	
1889	22.8	24.8	39.8	50.4	56.2	67.1	75.6	74.4	59.7	49.6	31.4	[39.0]	[49.2]
Means	22.8	24.8	39.8	50.4	56.2	67.1	75.6	72.6	59.7	48.2	32.1	34.3	48.6

PIKE'S PEAK, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1873											15.8	4.6	
1874	6.2	—0.3	4.9	7.8	23.4	34.4	41.6	39.0	29.6	21.6	11.7	7.0	18.9
1875	0.7	0.7	—0.4	11.4	23.3	34.7	35.1	35.7	32.2	25.2	10.7	9.8	18.3
1876	2.5	4.9	4.6	14.9	21.6	30.8	41.7	38.4	31.8	21.5	10.9	4.9	19.0
1877	5.4	7.9	12.0	9.5	18.4	28.1	39.1	39.4	31.1	17.0	5.9	6.7	18.4
1878	1.2	2.4	9.9	12.3	19.8	30.0	41.3	42.4	39.4	20.7	13.3	—0.3	19.4
1879	4.8	6.9	16.0	16.9	25.7	33.2	41.6	39.0	36.1	26.2	12.3	4.1	21.9
1880	6.5	—0.6	5.0	12.7	23.7	36.3	38.2	37.0	30.4	18.3	0.4	6.8	17.9
1881	-0.4	4.8	4.7	18.1	25.4	39.9	43.3	41.0	31.6	23.4	7.2	9.0	20.7
1882	2.3	5.8	8.2	13.5	19.9	30.3	38.3	38.0	29.4	19.8	13.3	6.7	18.8
1883	—1.9	4.4	13.0	12.1	19.5	31.3	39.1	38.8	30.2	16.4	13.8	8.1	18.7
1884	2.4	2.6	4.9	8.5	20.4	30.4	39.8	35.6	32.0	24.4	13.3	5.4	18.3
1885	1.4	1.9	9.3	15.8	21.1	29.8	39.2	37.1	31.0	21.1	13.8	8.8	19.2
1886	2.0	6.2	4.0	12.1	27.1	33.0	42.5	40.5	32.6	22.1	7.1	8.6	19.8
1887	0.4	4.0	14.6	14.7	26.5	36.3	39.1	38.0	33.4	23.9	18.3	2.2	21.0
1888	4.8	7.0	8.2	20.8	21.3	35.1	43.6	37.6	35.4				
Means	2.6	3.9	7.9	13.4	22.5	32.9	40.2	38.5	32.4	21.6	11.2	6.2	19.4

***Mean monthly and annual temperature at stations in Colorado*—Continued.**

PUEBLO, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	49.6	67.8	68.8	76.6	72.9	......	51.9	......	......	......
1887	......	......	46.6	52.0	63.1	......	76.3	70.1	64.5	51.3	......	27.1	......
1888	......	......	37.2	56.3	58.6	73.9	74.8	69.4	63.3	50.6	34.7	32.6	......
Means	......	......	41.9	52.6	63.2	71.4	75.9	70.8	63.9	51.3	34.7	29.8	......

RANCH NEAR COMO, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	16.6	21.6	27.7	34.5	40.1	49.5	56.8	54.2	49.1	40.3	30.6	24.3	37.1
1886	18.0	23.9	22.3	32.2	47.5	52.9	59.4	55.9	48.4	37.6	22.5	24.7	37.1
1887	18.0	19.5	30.4	33.2	44.8	54.5	55.8	53.5	49.9	40.3	32.6	17.0	37.5
1888	19.5	22.4	23.3	37.9	38.9	52.4	57.2	51.7	49.7	36.1	26.0	23.2	36.5
1889	16.0	17.4	28.4	37.0	40.9	49.4	57.6	54.8	46.9	38.4	22.0	22.3	35.9
1890	15.2	19.7	23.4	32.4	42.4	49.9	53.6	51.4	44.5	......	......	......	......
Means	17.2	20.8	25.9	34.5	42.4	51.4	56.7	53.6	48.1	38.5	26.7	22.3	36.5

REYNOLDS, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1868	......	......	......	......	63.2	76.2	79.9	71.5	62.3	52.6	37.1	29.8	......
1869	30.8	31.1	41.6	48.8	59.8	69.4	76.7	76.7	66.9	50.0	37.8	29.0	51.6
1870	33.7	41.3	41.7	54.7	66.4	71.9	79.7	73.6	64.0	50.3	44.4	22.4	53.7
1871	35.8	38.8	46.0	54.4	68.5	77.8	81.7	78.4	65.7	51.1	34.3	30.5	55.2
1872	25.3	37.3	40.6	54.0	......	......	......	......	......	......	......	......	......
Means	31.4	37.1	42.5	53.0	64.5	73.8	79.5	75.0	64.7	51.0	38.4	27.9	53.2

RIFLE FALLS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	24.2	37.5	47.6	50.4	59.9	67.4	67.9	54.6	47.1	27.2	32.7	......
1890	22.0	28.3	......	41.3	52.9	......	67.0	......	......	......	......	......	......
Means	22.0	26.2	37.5	44.4	51.6	59.9	67.2	67.9	54.6	47.1	27.2	32.7	44.9

RIVER BEND, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	39.4	47.8	59.9	70.4	......	......	......	......	33.9	38.9	......
1890	30.2	33.5	54.9	46.3	57.4	72.1	80.8	69.5	64.1	......	......	......	......
Means	30.2	33.5	47.2	47.0	58.6	70.4	80.8	69.5	64.1	......	33.9	38.9	......

ROCKY FORD, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	......	......	......	......	......	......	......	......	......	56.4	38.5	34.3	......
1889	19.6	28.5	45.4	55.4	62.6	71.2	74.7	73.2	60.2	54.0	32.6	35.0	51.0
1890	21.4	30.0	38.6	48.9	60.1	71.1	77.3	73.2	63.2	......	......	......	......
Means	20.5	29.2	42.0	52.2	61.4	71.2	76.0	73.2	61.7	55.2	35.6	34.6	51.1

SAGUACHE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	......	......	......	......	......	56.4	44.9	26.2	24.1	......
1887	18.9	23.7	38.5	41.5	52.0	62.7	[63.5]	60.5	56.3	45.9	34.9	17.8	[43.0]
1888	16.5	28.4	30.5	46.4	50.2	61.8	65.4	61.2	57.3	44.1	31.0	22.7	43.0
1889	11.0	13.1	36.9	46.8	52.5	58.8	66.6	63.8	54.3	44.5	......	......	......
Means	15.5	21.7	35.3	44.9	51.6	61.1	66.0	61.8	56.1	44.8	30.7	21.5	42.6

Mean monthly and annual temperature at stations in Colorado—Continued.

SAN LUIS EXPERIMENT STATION, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	....	....	....	....	....	....	....	63.0	56.4	46.8	25.0	31.8	....
1890	21.1	30.2	36.4	42.8	52.8	58.2	65.6	62.8	55.0	....	....	....	....
Means	21.1	30.2	36.4	42.8	52.8	58.2	65.6	62.9	55.7	46.8	25.0	31.8	44.1

SEDGWICK, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867	....	....	....	45.3	56.3	69.0	77.3	....	....	52.4	47.3	38.9	....
1868	24.9	33.7	36.7	45.6	59.4	72.6	85.5	73.2	58.6	53.7	37.9	26.8	50.7
1869	27.8	27.6	35.5	43.6	57.7	68.7	74.6	75.5	62.0	43.4	33.3	24.5	47.8
1870	26.0	33.5	31.8	50.5	64.7	73.2	80.8	68.0	61.2	49.0	42.3	24.0	50.4
Means	26.2	31.6	34.7	46.2	59.5	70.9	79.6	72.2	60.6	49.6	40.2	28.6	50.0

SILVERTON, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1875	....	....	....	....	....	....	....	....	48.9	42.4	28.3	16.8	....
1876	9.4	15.2	18.3	27.3	40.6	50.4	58.6	[53.5]	....	....	....	....	....
1886	....	....	....	....	....	....	....	....	50.2	39.3	22.6	23.1	....
1887	16.1	18.7	....	....	....	....	....	....	....	....	....	....	....
Means	12.8	17.0	18.3	27.3	40.6	50.4	58.6	53.5	49.6	40.8	25.4	20.0	34.5

SOUTH PUEBLO, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	....	....	....	....	....	....	....	....	64.5	51.4	32.6	26.8	....
1873	30.3	31.1	43.8	45.1	56.0	72.0	73.5	73.5	62.4	48.4	39.0	[29.3]	[50.4]
1874	....	30.9	....	45.3	....	77.3	82.4	....	63.3	56.6	43.5	32.6	....
1875	[29.8]	33.8	36.9	49.8	64.2	76.0	73.2	74.3	65.0	55.0	40.4	36.5	[52.9]
1876	31.1	39.6	40.4	....	63.8	74.8	....	....	65.9	53.3	38.2	27.3	....
1877	30.0	37.7	46.4	47.6	61.1	70.2	76.7	75.7	65.3	49.5	35.6	32.3	52.3
1878	28.0	38.6	45.7	55.4	61.0	69.0	80.6	78.2	64.6	54.2	43.0	20.1	53.2
Means	29.8	35.3	42.6	48.6	61.2	73.2	77.3	75.4	64.4	52.6	38.9	29.3	52.4

SUMMIT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1876	....	....	....	....	....	....	....	49.3	43.1	33.4	25.6	18.0	....
1877	19.6	19.6	22.3	23.1	31.7	45.4	52.8	51.5	43.0	27.5	13.7	10.3	30.0
1878	6.3	6.0	17.1	22.9	31.5	40.8	49.4	49.3	35.7	26.7	18.0	7.9	26.0
1879	10.7	18.2	27.1	32.1	41.2	42.6	48.7	44.3	39.0	....	....	....	....
1880	....	....	....	....	....	41.4	44.8	....	36.0	24.8	....	....	....
Means	12.2	14.6	22.2	26.0	34.8	42.6	48.9	48.6	39.4	28.1	19.1	12.1	29.0

TIION, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	....	....	33.8	49.9	49.8	66.6	70.8	64.2	46.2	45.4	31.9	....	....
1889	18.6	26.2	38.7	47.5	51.2	60.6	69.7	69.2	57.5	48.2	28.0	37.6	46.1
1890	27.4	30.2	37.4	46.8	54.0	62.8	72.0	68.0	59.6	....	....	....	....
Means	23.0	28.2	36.6	48.1	51.7	63.3	70.8	67.1	54.4	46.8	30.0	37.6	46.5

TRINIDAD, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	....	....	....	....	63.9	67.0	72.8	68.9	....	....	34.3	34.0	....
1887	30.7	35.1	43.7	46.8	57.3	63.0	67.7	66.0	61.9	51.4	44.1	32.0	50.0
1888	32.4	36.2	36.7	55.2	60.6	....	....	....	....	....	....	....	....
Means	31.6	35.6	40.2	51.0	60.6	65.0	70.2	67.4	61.9	51.4	39.2	33.0	50.6

Mean monthly and annual temperature at stations in Colorado—Continued.

T. S. RANCH, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	[25.0]	33.6	45.9	47.8	61.1	72.8	73.3	68.6	65.6	53.2	42.0	23.9	[51.1]
1888	22.6	36.2	37.8	54.6	58.2	71.8	75.8	69.3	66.5	50.8	38.2	28.6	50.9
1889	23.0	28.6	44.6	54.8	60.0	70.2	77.6	74.9	62.0	52.8	34.7	36.8	51.7
1890	27.8	34.1	39.3	51.3	62.6	68.8	77.4	72.2	63.9	......	......	......	......
Means	24.6	33.1	41.9	52.1	60.5	70.9	76.0	71.2	64.5	52.3	38.3	29.8	51.3

WALDEN, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	......	......	......	......	......	......	......	60.1	54.4	40.7	35.3	18.5	......
1888	16.5	25.4	24.6	42.6	45.0	57.7	63.5	57.4	54.5	41.8	......	......	......
1889	13.1	21.6	......	......	......	......	......	......	......	......	......	......	......
Means	14.8	23.5	24.6	42.6	45.0	57.7	63.5	58.8	54.4	41.2	35.3	18.5	40.0

WATKINS, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	42.6	49.5	......	......	......	......	......	......	28.3	40.1	......
1890	29.7	31.8	40.6	49.7	59.9	72.3	81.4	70.6	66.3	47.7	......	......	......
Means	29.7	31.8	41.6	49.6	59.9	72.3	81.4	70.6	66.3	47.7	28.3	40.1	51.6

WESTCLIFFE, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1886	......	......	......	41.5	55.7	60.6	......	......	55.4	47.1	27.9	28.7	......
1887	25.1	29.6	38.4	......	......	......	58.4	56.2	51.0	......	......	......	......
1889	......	......	......	......	......	......	......	......	......	43.6	23.5	38.8	......
1890	27.3	29.0	34.2	40.1	47.3	57.8	61.5	57.4	50.6	......	......	......	......
Means	26.2	29.3	36.3	40.8	51.5	59.2	60.0	56.8	52.3	45.4	25.7	33.8	43.1

WISE, FORT, COLO.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1860	......	......	......	......	......	......	......	......	......	......	......	25.9	......
1861	24.2	39.0	44.5	53.5	66.0	77.7	79.0	77.6	66.4	50.4	42.1	33.4	54.5
1862	22.2	27.3	39.5	47.4	65.2	......	......	......	......	......	......	......	......
Means	23.2	33.2	42.0	50.4	65.6	77.7	79.0	77.6	66.4	50.4	42.1	29.6	53.1

APPENDIX No. 55.

METEOROLOGICAL OBSERVATIONS MADE IN THE TERRITORY OF UTAH.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record. Length.	From—	To (inclusive)—	T. or R. missing.	Remarks.
	Box Elder.	° ′	° ′	*Feet.*	*Yrs. Mo.*				
R. R	Blue Creek	41 39	112 28	4,379	13 3*	July, 1877	Sept., 1890	......	Pacific Rwy. system.
R. R	Corinne	41 30	112 18	4,232	20 8	Feb., 1870	....do	......	Pacific Rwy system. Signal Service from Feb., 1871, to Feb., 1874.
R. R	Kelton	41 45	113 08	4,222	12 7	Mar., 1878	....do	......	Pacific Rwy system.
R. R	Promontory	41 35	112 35	....	20 7	Jan., 1870	Aug., 1890	......	Do.
R. R	Terrace	41 30	113 30	4,548	18 8*	Feb., 1870	Sept., 1890	......	Do.
	Weber.								
R. R	Ogden	41 12	111 57	4,340	20 8	Feb., 1870	....do	......	Pacific Rwy system. W. W. Crossman from Aug., 1889, to Sept., 1890.
	Summit.								
V. O	Coalville	40 56	111 28	5,630	11 7*	Mar., 1869	June, 1883	R.	Thomas Bullock.
V. O	St. Mary's	40 42	111 00	6,200	2 0*	June, 1865	Aug., 1867	R.	Do.
V. O	Wanship	40 49	111 24	6,200	3 4	June, 1866	Dec., 1874	......	Do.
V. O	Park City	40 39	111 31	....	0 10	Aug., 1889	May, 1890	......	Bell Telephone Co.
	Tooele.								
S. S	Deep Creek	40 32	112 18	....	3 1	Sept., 1877	Sept., 1880	......	Signal Service.
V. O	Stockton	40 35	112 23	....	0 10	Aug., 1889	May, 1890	......	Bell Telephone Co.
	Uintah.								
S. S	Fort Duchesne	40 35	109 50	4,941	2 7	Dec., 1887	June, 1890	......	Signal Service. U. S. post hospital from Jan., 1889, to Sept., 1890.
	Salt Lake.								
V. O	Bingham Cañon	40 32	112 08	....	0 7	Aug., 1889	Feb., 1890	......	Bell Telephone Co.
M. D	Camp Douglas	40 46	111 50	4,800	22 1*	Dec., 1862	Sept., 1890	......	U. S. post hospital.
S. S	Salt Lake City	40 46	111 54	4,354	26 11	Jan., 1850	June, 1890	......	Signal Service from Apr., 1874, to June, 1890. Thomas Bullock and others.
	Utah.								
M. D	Camp Floyd	40 16	112 08	4,725	3 1	July, 1858	July, 1861	......	U. S. post hospital.
V. O	Provo City	40 14	111 42	....	0 10	Aug., 1889	May, 1890	......	Bell Telephone Co.
	Juab.								
V. O	Levan	39 34	111 53	....	1 5	Apr., 1889	Sept., 1890	......	A. B. Larson.
V. O	Nephi	39 42	111 49	5,550	3 9*	Mar., 1883	....do	......	J. G. Bardsley, W. R. May.
	San Pete.								
V. O	Mount Pleasant	39 33	111 30	6,300	1 8	July, 1889	....do	......	H. C. Davidson.
	Emery.								
V. O	Moab	38 36	109 29	....	1 2	Aug., 1889	....do	......	Henry Crouse.
S. S	Price	39 38	110 42	....	1 9	Jan., 1889	....do	T.	Signal Service.

* Record broken.

Meteorological observations made in the Territory of Utah.

Class.	County and station.	Latitude.	Longitude.	Elevation above sea level.	Record.				T. or R. missing.	Remarks.
					Length.		From—	To (inclusive)—		
	Millard.	° ′	° ′	*Feet.*	*Ys.*	*Mo.*				
S. S ...	Fillmore............	38 58	112 18	....	3	0	Aug., 1877	Aug., 1880	......	Signal Service.
	Sevier.									
V. O...	Richfield	38 47	112 08	....	0	11	Aug., 1889	Sept., 1890	......	Neils Anderson.
	Beaver.									
V. O...	Beaver	38 18	112 38	6,170	1	5	May, 1889	....do	......	Rev. J. D. Gillilan.
S. S ...	Frisco	38 25	113 16	6,400	2	6	July, 1885	Dec., 1887	......	Signal Service.
	Garfield.									
V. O...	Losee...............	37 40	112 02	....	1	5	May, 1889	Sept., 1890	......	E. Caffall.
	Washington.									
V. O...	Harrisburg	37 16	113 23	2,375	2	2*	Feb., 1869	Feb., 1872	T.	James Lewis.
S. S ...	St. George	37 09	113 35	....	9	6*	Jan., 1861	Sept., 1890	......	Signal Service from Aug., 1877, to Sept., 1880. John and Seth A. Pymm and others.
	Kane.									
V. O...	Kanab...............	37 03	112 32	5,500	5	0	May, 1872	Oct., 1879	T.	James Lewis.
V. O ..	Mt. Carmel	37 17	112 41	5,215	4	4	Jan., 1874	Sept., 1890	......	Closed from Aug., 1878, to July, 1889. R. M. Engelstad, Robert Moncur.

* Record broken.

APPENDIX No. 56.

MONTHLY AND ANNUAL PRECIPITATION AT STATIONS IN UTAH.

Interpolated values are given in brackets [ ]. Capital T indicates a trace of precipitation.

BEAVER, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	1.20	0.86	0.38	1.93	0.40	1.62	0.14	3.79	......
1890	1.03	0.67	0.53	0.60	0.12	T	0.51	0.44	1.22	......	......	......	......
Means	1.03	0.67	0.53	0.60	0.66	0.43	0.44	1.18	0.81	1.62	0.14	3.79	11.90

BLUE CREEK, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	T	T	0.00	0.12	0.55	0.15	......
1878	0.20	0.72	1.06	0.43	1.98	0.58	0.10	0.94	1.80	1.15	0.20	0.00	9.16
1879	1.15	0.29	0.20	0.64	T	1.30	0.00	0.03	0.65	1.94	0.21	1.87	8.28
1880	0.00	0.30	0.00	1.49	0.76	0.00	1.09	0.00	0.21	0.44	0.10	2.54	6.93
1881	1.83	1.70	0.50	0.89	2.71	0.00	0.40	1.47	0.29	1.62	0.05	0.40	11.86
1882	0.45	0.92	0.75	2.54	0.65	0.70	0.90	0.74	0.90	1.98	0.00	0.50	11.03
1883	0.35	0.01	0.02	0.02	0.00	0.00	0.30	0.40	0.50	0.70	0.94	0.00	3.24
1884	1.13	0.70	1.52	2.16	1.01	0.52	0.00	0.00	1.80	0.50	0.10	2.50	11.94
1885	0.65	1.52	0.05	1.07	1.27	1.73	0.00	1.19	0.07	0.05	1.87	0.79	10.26
1886	1.16	0.35	1.05	0.80	0.05	0.70	0.88	0.55	0.91	0.85	1.05	0.28	8.63
1887	0.75	0.78	0.30	0.65	0.05	0.10	0.10	0.00	0.40	0.00	0.30	0.70	4.13
1888	2.10	0.15	0.55	0.45	0.10	0.05	0.25	0.05	0.00	0.20	[0.30]	0.95	[5.15]
1889	0.25	0.00	1.15	0.50	1.35	0.00	0.00	0.60	0.35	1.85	0.60	2.40	9.05
1890	2.00	0.85	1.80	1.20	0.95	0.40	0.34	0.80	T	......	......	......	......
Means	0.92	0.64	0.69	0.99	0.84	0.47	0.31	0.48	0.56	0.88	0.48	1.01	8.27

COALVILLE, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	......	......	......	......	3.75	......
1875	6.90	3.65	1.30	T	1.25	0.80	0.00	0.00	0.05	0.30	4.92	1.85	21.02
1876	3.10	2.25	2.68	0.82	1.55	0.00	1.50	0.60	0.40	[1.50]	0.30	1.00	[15.70]
1877	1.65	0.20	3.00	1.00	2.21	0.55	0.00	0.00	0.04	1.65	1.00	0.45	11.75
1878	0.30	1.85	0.90	2.51	0.30	0.90	0.95	0.80	0.98	1.02	0.00	0.20	10.71
1879	1.70	0.65	[1.23]	[1.25]	0.25	0.00	0.00	[0.70]	[0.40]	1.30	0.72	1.78	[9.98]
1880	0.82	2.45	0.72	1.90	1.75	0.10	0.00	0.50	0.00	[1.50]	2.20	0.98	[12.92]
1881	0.40	0.10	0.35	1.42	1.45	1.50	1.00	1.90	0.55	0.50	[1.50]	[1.40]	[12.07]
1882	0.50	0.92	0.12	[1.25]	[1.11]	2.40	0.06	0.90	0.60	4.61	[1.50]	[1.40]	[15.37]
1883	......	......	0.80	[1.25]	0.09	0.11	......	......	......	......	......	......	......
Means	1.92	1.51	1.23	1.27	1.11	0.71	0.44	0.68	0.38	1.55	1.52	1.42	13.74

CORINNE, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	1.35	0.66	0.52	0.14	0.00	0.00	......	0.00	0.00	0.00	1.10	......
1871	0.52	0.60	1.28	0.83	1.79	0.02	0.99	0.20	0.41	0.40	2.87	4.47	14.38
1872	0.70	1.38	0.64	1.43	2.65	0.30	0.11	T	0.00	0.17	0.16	3.38	10.92
1873	1.63	3.65	0.52	0.75	3.45	0.12	0.14	1.75	0.43	1.23	0.18	2.35	16.20
1874	0.82	0.99	1.75	0.00	0.00	0.00	2.50	0.00	0.00	1.50	4.00	0.45	12.01
1875	1.40	0.30	1.08	2.05	0.60	1.00	0.50	0.80	0.50	0.75	5.45	[2.60]	[17.03]
1876	1.32	0.58	0.82	0.90	1.51	0.00	2.13	0.00	0.35	1.20	0.00	0.85	9.66
1877	1.66	0.00	0.20	0.15	1.50	0.15	0.00	0.00	0.10	0.50	0.40	0.75	5.41

Monthly and annual precipitation at stations in Utah—Continued.

CORINNE, UTAH—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	0.82	2.10	0.98	0.98	1.15	0.50	0.00	0.31	1.25	0.75	0.00	0.00	8.84
1879	1.18	0.17	0.20	1.35	0.00	0.80	0.00	0.00	0.20	0.75	0.75	2.10	7.50
1880	0.20	0.30	0.65	1.50	0.55	0.00	0.67	0.10	0.25	0.70	0.40	2.70	8.02
1881	2.15	2.15	0.95	1.45	2.15	0.00	0.02	0.95	0.37	1.80	0.70	0.25	12.94
1882	1.20	2.40	0.30	1.45	0.05	0.75	0.00	0.10	0.77	1.17	0.15	0.40	8.74
1883	1.00	0.80	1.25	1.00	0.95	0.33	0.48	0.20	0.00	1.95	1.25	0.80	10.01
1884	0.55	1.90	3.80	2.10	1.75	0.70	0.20	0.30	2.90	1.05	0.05	3.65	18.95
1885	1.65	2.00	0.10	2.50	1.15	2.75	0.00	1.51	0.15	0.15	3.09	1.49	16.54
1886	0.98	1.50	2.25	0.75	0.00	0.60	0.65	0.15	1.75	1.50	1.40	0.25	11.78
1887	0.88	1.35	0.70	1.70	0.85	0.30	0.35	0.25	0.15	0.00	0.18	1.10	7.31
1888	2.70	0.75	1.35	1.10	0.30	0.40	0.90	0.10	0.95	0.80	0.65	1.90	11.90
1889	0.65	0.05	1.70	1.25	1.30	0.00	0.00	0.45	0.40	3.25	0.98	4.53	14.56
1890	4.00	1.55	1.70	1.15	1.10	0.00	0.05	0.20	0.10	......	......	......	....
Means	1.30	1.23	1.09	1.19	1.07	0.42	0.46	0.37	0.53	0.98	1.18	1.76	11.58

DEEP CREEK, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	0.50	0.70	0.00	0.55	....
1878	0.80	3.15	0.07	0.76	1.06	0.82	0.14	[0.80]	0.38	0.17	0.23	0.05	[8.43]
1879	0.43	0.00	T	0.09	T	0.15	0.00	0.00	T	0.19	0.40	0.16	1.42
1880	0.02	0.15	0.12	1.23	......	......	......	0.51	0.22	......	......	......	....
Means	0.42	1.10	0.06	0.69	0.53	0.48	0.07	0.44	0.28	0.35	0.21	0.25	4.88

DOUGLAS, CAMP, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1863	0.19	0.53	0.39	2.80	0.11	0.00	0.10	0.00	0.35	0.00	0.10	2.16	6.73
1864	1.20	0.10	1.20	0.81	1.61	0.01	0.00	0.08	1.02	[1.60]	1.00	3.70	[12.33]
1865	1.25	2.50	1.11	0.05	0.20	0.15	1.11	0.10	1.40	3.20	0.45	5.10	16.92
1866	2.55	1.26	2.08	2.59	2.06	......	......	......	0.40	0.67	0.58	3.31	....
1867	4.51	0.84	4.94	1.00	2.16	1.40	0.58	0.89	1.16	1.50	4.10	4.62	28.00
1868	3.14	0.64	1.50	2.22	5.00	1.04	1.36	0.20	1.11	0.06	0.03	0.76	17.05
1869	3.36	0.47	1.31	3.58	5.48	0.22	0.55	0.75	1.55	0.75	1.85	[2.10]	[22.27]
1870	1.53	1.44	4.57	3.40	2.10	0.73	1.48	0.45	0.45	0.85	1.39	1.85	20.24
1871	1.60	2.44	3.39	3.15	5.09	0.30	1.38	T	T	0.55	1.83	0.95	20.59
1872	1.30	1.34	1.20	2.04	2.34	1.16	0.02	0.72	0.69	1.36	0.66	2.26	15.09
1873	2.18	1.89	0.90	2.00	4.10	0.24	0.12	0.94	0.42	0.84	0.38	1.20	15.21
1874	1.28	1.03	2.87	0.74	2.89	0.72	2.12	2.11	0.30	1.89	2.26	1.06	19.27
1875	2.21	0.80	2.37	0.05	2.61	1.10	0.64	T	1.15	1.14	4.54	2.78	19.39
1876	1.22	0.90	4.10	1.79	3.70	0.14	2.16	0.32	0.20	2.80	0.52	1.50	19.35
1877	1.10	0.40	2.44	1.36	3.42	1.22	0.18	0.18	0.42	2.06	0.54	1.56	14.88
1878	0.80	3.18	2.04	2.28	2.02	[0.35]	1.38	0.82	2.64	1.42	0.74	0.28	[17.95]
1879	1.98	0.90	0.70	3.70	T	0.94	0.05	0.18	T	2.08	0.66	4.54	15.74
1880	0.52	1.30	0.42	2.64	2.34	0.22	0.30	0.74	0.84	0.62	1.01	2.88	13.86
1881	1.58	3.02	1.62	1.22	[2.50]	0.16	0.40	1.38	0.50	2.40	2.12	1.24	[18.14]
1882	1.40	1.20	1.76	2.64	1.28	1.40	0.70	1.62	[0.40]	3.60	[0.50]	1.90	[18.40]
1883	3.00	1.30	1.50	......	......	......	......	......	......	......	......	......	....
1889	0.82	0.91	1.38	2.57	2.41	T	T	0.87	0.52	3.81	1.00	1.37	18.66
1890	3.07	2.05	1.12	0.94	0.16	0.13	0.05	1.83	0.01	......	......	......	....
Means	1.82	1.32	1.95	1.98	2.41	0.58	0.70	0.68	0.71	1.58	1.25	2.40	17.41

DU CHESNE, FORT, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	......	......	......	......	......	......	......	......	......	......	......	0.48	....
1888	0.41	0.61	0.22	1.05	0.69	0.00	0.69	1.09	0.37	0.15	0.26	0.92	6.46
1889	0.35	0.18	0.32	0.68	0.73	0.15	0.49	0.56	0.34	0.66	0.05	1.77	6.28
1890	1.01	2.05	0.02	0.21	0.00	0.00	1.35	0.85	0.32	......	......	......	....
Means	0.59	0.95	0.19	0.65	0.47	0.05	0.84	0.83	0.34	0.40	0.16	1.06	6.53

Monthly and annual precipitation at stations in Utah—Continued.

FILLMORE, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	0.00	0.00	0.00	0.92	0.40	....
1878	1.29	1.88	1.00	1.19	1.03	0.83	1.27	1.62	2.02	0.26	0.29	0.63	13.31
1879	1.82	1.23	0.15	1.69	0.31	0.10	0.00	1.02	0.00	0.00	0.50	3.00	9.82
1880	2.25	2.75	2.75	5.00	[0.70]	0.02	0.66	0.50	......	......	......	......	....
Means	1.79	1.95	1.30	2.63	0.68	0.32	0.64	0.78	0.67	0.09	0.57	1.34	12.76

FLOYD, CAMP, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1858	......	......	......	......	......	......	0.00	0.43	0.18	1.78	0.50	0.15	....
1859	0.35	1.11	0.28	0.40	1.24	0.00	2.67	0.18	1.72	0.00	3.11	0.19	11.28
1860	0.20	0.12	0.72	0.80	0.06	0.39	1.54	0.40	0.17	0.20	0.09	0.14	4.83
1861	1.05	0.03	1.54	0.77	0.41	0.15	0.08	......	......	......	......	......	....
Means	0.53	0.43	0.85	0.66	0.57	0.18	1.07	0.34	0.69	0.66	1.23	0.16	7.37

FRISCO, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	0.15	3.96	0.07	0.46	0.97	0.15	....
1886	0.54	0.19	0.28	0.15	T	T	1.35	3.52	0.11	0.66	1.23	0.05	8.08
1887	0.15	0.86	0.46	1.53	0.19	0.02	1.34	0.54	0.28	0.58	0.39	0.76	7.10
Means	0.34	0.52	0.37	0.84	0.10	0.01	0.95	2.67	0.15	0.57	0.86	0.32	7.70

HARRISBURG, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	......	0.95	1.30	0.10	2.15	0.10	0.90	0.80	......	0.10	0.70	0.01	....
1870	0.15	3.80	2.10	0.60	2.25	......	3.60	......	......	......	......	......	....
1871	......	2.50	0.10	2.10	......	......	3.50	0.50	0.30	......	3.15	0.10?	....
1872	0.05	4.50	......	......	......	......	......	......	......	......	......	......	....
Means	0.10	2.94	1.17	0.93	2.20	0.10	2.67	0.65	0.30	0.10	1.92	0.06	13.14

KANAB, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1872	......	......	......	......	1.80	2.10	......	......	......	......	0.50	6.50	....
1873	......	1.80	......	......	......	......	......	......	......	......	......	......	....
1874	......	......	......	......	......	......	3.10	1.30	......	1.00	1.90	0.70	....
1875	3.30	0.30	0.30	0.66	0.10	......	0.80	......	0.10	......	3.20	1.30	....
1876	2.20	1.40	1.75	1.30	......	......	1.50	0.50	1.25	4.40	0.30	......	....
1877	0.90	[illegible]	0.20	0.70	0.22	......	0.90	0.20	0.10	0.26	......	0.80	....
1878	0.95	3.55	......	0.80	......	0.20	0.30	0.50	......	0.20	0.30	......	....
1879	......	0.05	......	0.10	......	......	......	......	......	......	......	......	....
Means	1.84	1.68	0.75	0.59	0.71	1.15	1.32	0.62	0.48	1.46	1.24	2.32	14.16

KELTON, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	0.15	0.60	1.28	0.57	2.08	0.14	0.53	0.35	0.00	0.00	....
1879	0.35	0.19	0.08	0.65	0.00	0.32	0.00	0.00	0.27	0.14	0.65	1.42	4.07
1880	0.08	0.10	0.15	0.65	0.00	0.00	0.00	0.00	0.08	0.20	0.05	0.90	2.21
1881	0.80	1.98	0.00	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.90	4.69
1882	1.00	1.80	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	3.12
1883	0.42	0.05	0.20	1.40	0.10	0.00	0.50	0.10	0.00	0.41	0.41	0.16	3.75
1884	0.05	0.72	2.20	1.80	0.81	0.35	0.15	0.34	1.97	1.70	0.00	3.35	13.44
1885	0.50	0.75	0.02	1.00	0.55	0.80	0.00	1.54	0.10	T	[1.00]	0.25	[6.51]
1886	1.13	0.76	0.29	0.38	0.08	1.12	0.22	0.44	0.35	0.58	1.25	0.32	7.13
1887	0.01	0.48	0.03	1.57	0.00	0.33	1.32	0.25	0.10	0.00	0.40	0.60	5.12

Monthly and annual precipitation at stations in Utah—Continued.

KELTON, UTAH.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1888	1.50	0.00	0.70	0.30	0.20	1.13	0.33	0.30	0.38	0.27	0.45	1.39	6.95
1889	0.22	0.00	1.26	0.92	1.23	0.20	0.00	0.00	0.00	0.57	0.11	2.72	7.23
1890	2.50	0.65	0.80	0.95	0.65	0.15	0.00	0.10	0.20	......	......	......	......
Means	0.72	0.62	0.45	0.87	0.38	0.41	0.36	0.25	0.31	0.35	0.36	1.02	6.10

LEVAN, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	T	0.90	0.00	1.18	0.92	2.48	1.34	4.20	......
1890	2.20	1.15	1.45	0.25	0.48	0.10	0.40	0.45	0.28	......	......	......	......
Means	2.20	1.15	1.45	0.25	0.24	0.50	0.20	0.82	0.60	2.48	1.34	4.20	15.43

LOSEE, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	0.35	0.15	5.25	2.42	0.40	1.10	T	8.50	......
1890	1.10	2.40	0.55	1.10	0.40	0.00	3.30	1.20	1.50	......	......	......	......
Means	1.10	2.40	0.55	1.10	0.38	0.08	4.28	1.81	0.95	1.10	T	8.50	22.25

MOAB, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	0.45	0.02	0.80	0.33	2.83	......
1890	0.58	1.28	0.68	0.29	T	T	0.10	0.61	0.26	......	......	......	......
Means	0.58	1.28	0.68	0.29	T	T	0.10	0.53	0.14	0.80	0.33	2.83	7.56

MOUNT CARMEL, UTAH.*

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	3.80	3.10	6.50	1.10	5.75	0.00	3.25	4.25	0.25	2.75	4.50	1.40	36.65
1876	8.89	0.70	1.30	0.05	0.20	[0.02]	[0.88]	1.00	1.50	18.75?	0.00	0.00	[33.29]
1877	......	4.00	10.00	1.55	4.75	0.00	0.00	0.00	0.00	0.20	......	......	......
1878	3.00	11.90	3.88	1.25	0.10	0.08	0.00	......	......	......	......	......	......
1889	......	......	......	......	......	......	......	1.86	0.34	2.41	0.78	6.94	......
1890	2.25	1.94	1.33	0.73	0.27	T	0.27	0.94	1.30	......	......	......	......
Means	4.48	2.33	4.60	0.94	2.21	0.02	0.88	1.61	0.68	6.03	1.76	2.78	28.32

* Record 1874-78 not reliable.

MOUNT PLEASANT, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	0.81	0.55	0.55	1.35	0.76	3.55	......
1890	[2.00]	3.46	2.30	0.00	0.53	0.26	0.90	0.52	0.05	......	......	......	......
Means	2.00	3.46	2.30	0.00	0.53	0.26	0.86	0.54	0.30	1.35	0.76	3.55	15.91

NEPHI, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	......	......	1.27	3.05	1.10	0.10	1.40	0.70	0.15	2.25	1.70	1.98	......
1884	0.86	3.70	2.15	6.30	2.70	0.50	0.25	0.35	1.70	2.05	0.00	5.40	25.96
1885	0.52	2.17	0.45	4.19	2.09	1.67	0.02	2.65	......	......	......	......	......
1889	......	......	......	......	0.50	0.09	0.76	1.96	0.40	1.72	0.28	2.35	......
1890	1.54	0.63	0.83	0.67	0.67	0.17	0.55	0.42	0.45	......	......	......	......
Means	0.97	2.17	1.18	3.55	1.41	0.51	0.60	1.22	0.67	2.01	0.66	3.24	18.19

Monthly and annual precipitation at stations in Utah—Continued.

OGDEN, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	......	0.38	1.08	2.08	......	0.05	0.00	1.08	0.00	0.00	0.00	0.57	....
1871	0.65	1.33	0.77	1.50	1.96	0.00	0.05	0.00	0.00	0.20	1.93	2.60	10.99
1872	0.70	0.00	0.35	1.70	0.21	0.11	0.00	0.05	0.00	0.05	0.22	3.15	6.54
1873	1.62	3.35	0.22	0.90	4.44	0.50	T	[1.00]	0.15	1.85	0.30	1.40	[15.73]
1874	0.70	1.00	1.50	0.33	3.25	0.10	1.17	0.40	0.00	1.84	1.50	[0.50]	[12.29]
1875	2.70	0.42	1.28	0.60	2.56	0.98	0.70	1.50	0.59	0.78	5.57	3.01	20.69
1876	2.38	1.00	1.27	0.96	3.05	0.28	1.25	T	0.46	2.51	0.52	1.12	14.80
1877	1.01	0.10	4.30	1.07	2.81	0.61	T	0.00	0.64	0.18	2.28	0.92	13.95
1878	0.99	2.90	1.26	1.58	2.17	0.27	0.15	0.97	2.82	1.50	0.45	0.05	15.11
1879	1.35	0.65	0.32	2.71	0.21	0.94	0.01	0.12	0.23	2.82	0.63	2.36	12.35
1880	0.70	2.55	0.92	1.22	0.74	0.00	0.00	0.59	0.34	0.83	0.50	1.85	10.24
1881	4.20	2.66	0.58	0.00	0.00	0.00	0.14	0.02	[0.40]	1.74	0.54	0.25	[10.53]
1882	0.75	2.14	0.20	[1.50]	0.20	0.68	0.00	0.22	0.27	3.58	0.37	0.66	[10.57]
1883	1.03	0.32	1.14	0.47	2.11	T	T	0.62	0.00	2.21	1.46	1.62	10.98
1884	0.77	2.21	3.63	3.85	1.51	0.61	0.00	0.08	2.41	1.46	0.00	2.96	19.49
1885	2.12	2.62	0.00	4.12	0.95	2.64	0.00	0.51	0.52	0.47	3.63	1.82	19.40
1886	2.10	0.88	1.82	1.57	0.00	0.30	0.00	0.42	1.23	1.97	1.72	0.59	12.60
1887	1.80	2.28	0.49	1.88	0.08	0.25	0.43	0.43	0.55	0.15	0.00	0.80	9.14
1888	2.60	1.06	1.20	0.21	0.28	1.07	1.00	0.36	0.61	0.15	1.06	2.43	12.03
1889	0.55	0.40	1.15	1.57	1.95	0.05	0.00	1.03	0.65	3.81	0.79	4.96	16.91
1890	3.87	3.92	4.23	1.03	0.85	0.54	0.40	0.12	0.07	......	......	......	....
Means	1.63	1.53	1.32	1.47	1.47	0.48	0.25	0.45	0.57	1.40	1.17	1.68	13.46

PARK CITY, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	0.00	0.00	0.66	0.00	3.00	....
1890	0.00	0.80	0.40	0.00	0.00	[0.20]	[0.00]	......	......	......	......	......	....
Means	......	......	......	......	......	......	......	......	......	......	......	......	5.06

PRICE, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	0.30	0.40	0.60	0.30	0.85	0.00	1.00	0.00	0.80	0.80	0.00	0.40	5.45
1890	0.08	0.05	0.02	[0.00]	0.00	0.00	0.00	0.10	0.25	......	......	......	....
Means	0.19	0.22	0.31	0.15	0.42	0.00	0.50	0.05	0.52	0.80	0.00	0.40	3.56

PROMONTORY, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[1.11]	0.52	1.24	0.16	0.19	0.82	0.00	0.00	0.00	[0.00]	[0.00]	0.81	[4.85]
1871	0.77	1.23	0.25	0.45	0.94	0.00	0.25	1.03	0.90	0.21	1.54	1.25	8.82
1872	0.10	0.44	0.20	0.00	0.82	0.20	0.00	0.00	1.13	0.00	0.12	0.86	3.87
1873	0.72	2.00	0.20	0.01	0.56	0.03	0.00	0.72	0.13	1.36	0.30	1.88	7.91
1874	1.15	1.80	2.50	0.21	[0.00]	0.00	0.70	0.40	[0.00]	[0.90]	0.84	0.38	[8.88]
1875	3.65	0.20	0.85	0.50	2.22	0.10	0.60	0.45	[0.60]	0.45	1.10	2.60	[13.32]
1876	2.20	1.40	1.95	1.70	[1.00]	0.00	0.85	0.00	0.32	1.61	[0.00]	1.00	[12.03]
1877	1.55	0.42	1.00	0.35	1.20	0.00	0.00	0.00	0.73	0.69	0.59	0.45	6.98
1878	0.37	0.78	1.43	1.54	1.58	2.07	0.31	0.97	1.86	1.17	0.00	0.00	12.08
1879	1.45	0.59	0.31	0.88	0.00	0.60	[0.00]	0.00	0.16	0.78	1.00	1.65	[7.42]
1880	0.00	0.25	0.20	2.03	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.60	3.30
1881	0.00	1.07	0.25	0.30	0.57	0.00	0.40	1.20	0.00	0.85	0.20	0.40	5.24
1882	1.05	1.15	0.58	0.32	0.75	1.15	0.00	0.11	1.00	1.12	0.05	0.60	8.18
1883	0.50	0.20	2.08	0.10	0.25	0.00	0.60	0.08	0.15	1.20	2.12	0.41	7.69
1884	0.90	1.75	1.08	4.37	1.42	1.02	0.00	0.00	2.17	0.56	0.00	1.40	14.67
1885	0.32	1.02	0.15	1.32	1.14	1.40	0.00	1.15	0.19	0.00	1.48	0.80	8.88
1886	1.38	0.71	1.25	0.05	0.00	0.19	0.00	0.23	0.91	0.16	0.72	0.10	5.70
1887	1.15	0.40	0.00	[1.00]	0.00	0.22	0.09	0.10	0.30	0.00	0.00	0.30	[3.56]
1888	2.70	0.30	0.31	[0.80]	0.00	0.06	0.10	0.01	0.12	0.02	0.22	2.10	[6.74]
1889	0.45	0.11	0.01	0.04	1.05	0.00	0.00	1.00	0.41	0.10	0.17	0.93	4.33
1890	1.80	0.70	0.40	0.30	0.00	0.00	0.00	0.00	......	......	......	......	....
Means	1.11	0.81	0.77	0.78	0.66	0.37	0.19	0.35	0.55	0.57	0.52	0.93	7.61

Monthly and annual precipitation at stations in Utah—Continued.

PROVO CITY, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889								0.00	0.50	1.12	1.15	2.88	
1890	1.04	0.50	0.60	0.00	1.00	[0.20]	[0.00]						
Means	1.04	0.50	0.60	0.00	1.00	0.20	0.00	0.00	0.50	1.12	1.15	2.88	8.99

RICHFIELD, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889								1.75		0.47	0.23	1.78	
1890	[1.00]	[0.60]	0.61	1.51	0.06	T	0.52	0.30	0.53				
Means	1.00	0.60	0.61	1.51	0.06	T	0.52	1.02	0.53	0.47	0.23	1.78	8.33

SALT LAKE CITY, UTAH.*

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1857		0.85	0.97	0.19	0.83	1.00	0.64	0.85	0.58	1.00			
1858									0.15	3.28			
1859	0.65	3.88	3.33	1.43	1.85	0.11	[0.54]	0.13	1.58	0.22	3.85	0.70	[18.27]
1861	1.40	2.13	2.49	1.47	1.10	[0.75]	1.57	1.47	3.01	[1.71]	1.76	2.13	[20.99]
1863		2.74				0.30							
1864	3.28	0.86	2.94	1.37	1.96	1.50	0.00	1.25	0.73	3.75	1.19	5.04	23.87
1865	1.22	3.72	2.38	0.54	0.26	0.70	1.75	0.62	1.52	3.15	0.42	6.39	22.67
1866	1.83	1.60	2.72	3.34	2.05	5.34	8.73	1.98	2.05	1.80	2.20	4.56	38.20
1867		1.75				1.47	2.61	9.43	1.07	1.41		3.65	
1868	2.64				2.43	4.00		3.69					
1872					2.50	3.90	0.00	1.56	0.54	1.01	0.90	1.90	
1873	3.65	5.60	1.60	1.25	10.05	0.85	0.60	4.75	1.00	1.60	1.00	1.00	32.95
1874	[1.52]	[1.38]	1.31	0.90	2.84	0.74	2.42	1.63	0.20	1.74	2.16	0.73	[17.57]
1875	3.05	0.79	2.81	1.50	2.91	0.90	1.01	0.25	1.22	1.36	5.81	2.03	23.64
1876	1.23	1.52	4.00	2.09	4.30	0.09	0.83	0.92	0.42	3.27	0.81	1.80	21.28
1877	0.87	0.38	2.93	2.14	3.49	0.80	0.92	0.28	0.90	2.41	1.02	1.11	16.35
1878	1.07	3.49	2.54	2.63	2.50	0.35	1.08	0.81	3.15	1.39	0.63	0.11	19.75
1879	1.87	0.71	0.67	3.26	0.10	1.34	0.07	0.06	0.01	1.62	0.32	3.08	13.11
1880	0.29	1.02	0.43	2.37	1.85	0.01	0.20	0.74	0.56	0.40	1.17	1.90	10.94
1881	1.24	2.44	0.88	2.37	2.55	0.28	0.21	1.61	0.43	2.19	1.44	1.24	16.88
1882	1.50	0.42	1.12	3.81	0.26	2.24	0.30	1.61	0.37	2.89	0.54	0.92	15.98
1883	1.47	0.72	1.75	2.92	0.98	0.33	0.10	0.62	0.13	2.24	1.78	1.20	14.24
1884	0.71	2.23	3.69	2.89	1.78	0.33	0.27	0.73	1.91	0.36	0.50	2.12	17.52
1885	1.48	1.56	2.64	3.47	2.49	2.67	0.58	0.90	1.29	0.59	3.10	0.92	21.69
1886	1.91	1.36	2.60	4.43	0.06	1.02	T	0.59	1.88	1.98	1.79	1.27	18.89
1887	2.36	1.41	0.35	1.87	0.73	0.37	1.23	0.69	0.55	0.30	0.25	1.55	11.66
1888	1.52	1.22	2.18	0.99	0.34	0.98	0.24	0.63	0.51	0.80	2.00	2.21	13.62
1889	0.73	0.81	1.64	1.52	2.97	0.01	0.08	0.92	0.52	3.85	1.04	4.37	18.46
1890	3.07	2.05	1.12	0.74	0.58	0.32							
Means	1.52	1.38	1.92	2.35	1.81	0.75	0.54	0.81	0.88	1.71	1.52	1.66	16.85

* The originals of all records prior to March, 1874, are not in the possession of the Signal Service. The monthly totals are taken from the records of the Smithsonian Institution.

ST. GEORGE, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1861	1.01	0.43		0.04		0.04		1.17	0.98		0.23		
1862		0.98	0.64										
1863	0.85	0.90						0.37					
1864					1.11		0.22	0.11	0.51	1.36	1.03	0.94	
1865	2.44	0.83	0.01	0.52	0.00	0.01	1.03	[0.27]	0.20	0.80	0.25	1.30	[7.66]
1866				0.08									
1871	0.65	1.24	0.74	0.96	0.86	0.12	0.05	0.46	0.21	0.30	0.95	2.89	9.43
1872	0.44	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.59
1877										0.30	0.00	0.16	
1878	0.56	1.87	0.74	0.96	0.86	0.00	[0.24]	0.46	0.21	0.00	0.51	0.14	[6.55]
1879	0.65	0.01	0.00	0.36	0.00	0.00	0.05	0.06	0.03	0.10	1.67	2.98	5.91
1880	0.44	0.48		T	0.00	0.12		0.05	0.05				
1889						0.05	0.33	0.00	1.26	0.82	0.00	4.10	
1890	2.97	1.05	1.47			0.00	0.00	0.15	1.20				
Means	1.11	0.78	0.51	0.36	0.40	0.04	0.24	0.28	0.46	0.46	0.52	1.58	6.74

Monthly and annual precipitation at stations in Utah—Continued.

STOCKTON, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889								0.00	0.13	2.14	0.36	1.24	
1890	0.00	0.80	0.00	0.00	0.09	[0.20]	[0.10]						
Means													5.56

TERRACE, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870		0.54	0.50	0.00	0.08	0.11	0.00	0.00	0.00	0.00		0.30	
1871	0.21	0.10	0.09	0.08	0.19	0.04	0.01	0.03	0.01	0.00	0.62	1.99	3.37
1872	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.60	0.10	0.47	0.76
1873	1.27												
1874	[0.61]	[0.35]	0.66	0.31	0.53	0.18	0.75	0.00	0.00	0.00	1.83	0.00	[5.22]
1875	2.15	0.00	0.00	0.00	0.13	[0.25]	0.20	0.06	0.00	0.00	0.65	0.95	[4.39]
1876	1.20	0.00	1.40	0.20	0.16	0.35	0.75	0.70	0.00	[0.20]	0.13	0.10	[5.19]
1877	0.78	0.10	0.59	[0.40]	0.65	0.00	0.00	0.00	0.00	0.07	0.30	2.12	[5.01]
1878	0.00	0.52	0.23	0.47	1.17	0.20	0.13	1.21	1.45	0.27	0.00	0.00	5.65
1879	0.70	0.05	0.00	0.38	0.00	0.32	0.00	0.09	0.27	0.25	0.85	1.65	4.56
1880	0.00	0.35	0.00	0.30	0.10	0.00	[0.00]	0.00	0.08	0.15	0.00	1.75	[2.73]
1881	0.85	1.30	0.38	0.60	0.12	0.00	0.29	0.34	0.00	0.48	0.00	0.45	4.81
1882	0.35	0.85	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.05	[0.00]	0.10	[1.65]
1883	0.85	0.10	0.18	1.13	0.50	0.20	0.15	0.61	0.00	0.60	0.45	0.30	5.07
1884	0.70	0.90	1.58	1.74	1.02	0.46	0.03	0.05	1.61	0.57	0.00	1.38	10.04
1885	0.12	0.15	T	0.27	1.12	0.53	0.00	0.02	0.25	T	0.75	0.03	3.24
1886	0.57	0.58	0.50	0.39	0.12	1.23	0.15	0.00	0.55	0.05	0.25	0.15	4.51
1887	0.32	0.22	0.20	0.15	0.09	0.00	0.00	0.00	0.00	0.00	0.30	0.10	1.38
1888	0.10				0.00	0.05	0.00	0.00	0.00				
1889	0.05	0.00	1.45	1.00	1.00	0.50	0.00	0.00	0.00	0.75	0.00	1.80	6.55
1890	1.35	0.45	0.35	0.15	0.15	0.15	0.00	0.00	0.15				
Means	0.61	0.35	0.44	0.40	0.36	0.23	0.12	0.16	0.22	0.19	0.37	0.77	4.29

WANSHIP, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1867												3.70	
1868	1.45	0.70	2.00									1.40	
1869	1.70	1.40											
1871	1.00	1.55	2.20									1.98	
1872	0.23	2.05	1.45			2.10				0.28			
1874												0.38	
Means	1.10	1.42	1.88			2.10				0.28		1.86	

Appendix No. 57.

MEAN MONTHLY AND ANNUAL TEMPERATURE FOR STATIONS IN UTAH.

Interpolated values are given in brackets [ ].

BEAVER, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	54.6	62.8	71.1	69.5	59.8	51.4	35.3	38.0	......
1890	26.0	34.3	40.7	49.5	59.8	60.9	......	......	......	......	......	......	......
Means	26.0	34.3	40.7	49.5	57.2	61.8	71.1	69.5	59.8	51.4	35.3	38.0	49.6

BLUE CREEK, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1877	......	......	......	......	......	......	......	......	......	......	39.7	30.8	......
1878	27.7	35.3	44.2	[54.0]	58.0	72.0	79.8	81.6	62.9	49.1	43.9	26.9	[53.0]
1879	26.9	39.8	49.9	56.5	63.0	70.4	82.2	80.0	71.5	53.6	37.1	30.8	55.1
1880	28.4	[32.0]	34.4	51.3	59.8	70.3	77.1	75.2	64.5	50.3	29.2	30.7	[50.3]
1881	27.8	34.2	41.7	55.9	64.0	77.6	81.0	79.7	67.0	53.6	34.6	31.9	54.1
1882	22.3	26.5	38.8	49.0	61.3	73.1	81.2	81.4	67.4	47.7	35.0	34.3	51.5
1883	[25.0]	26.1	44.2	47.3	59.7	70.4	79.6	78.6	69.6	48.4	40.9	27.6	[51.4]
1884	23.5	26.0	39.8	45.8	60.4	69.3	71.3	75.8	60.2	50.2	42.0	30.2	49.5
1885	21.3	33.8	45.2	55.7	61.8	68.8	81.6	79.8	69.5	56.0	42.1	29.7	54.3
1886	21.6	35.9	37.3	51.9	65.9	71.7	82.1	78.6	68.1	50.3	30.6	34.2	52.6
1887	34.2	33.7	47.1	53.0	72.1	78.9	85.0	79.6	67.2	53.5	41.3	28.8	56.2
1888	17.6	[32.0]	38.4	58.1	67.0	78.3	83.3	79.9	71.7	54.7	[38.0]	31.7	[54.2]
1889	19.5	27.6	47.0	61.6	66.9	82.8	88.4	83.1	66.4	52.7	38.3	36.0	55.8
1890	21.1	34.8	41.0	58.3	68.7	73.4	......	......	......	......	......	......	......
Means	24.8	32.1	42.2	53.7	63.7	73.6	81.3	79.4	67.2	51.7	37.9	31.0	53.2

COALVILLE, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1869	......	......	36.9	43.1	57.6	65.1	72.1	69.5	60.4	45.5	38.9	20.6	......
1870	26.4	28.2	32.8	48.0	54.5	65.2	73.0	67.3	59.0	45.6	37.3	18.5	46.3
1871	24.9	27.8	37.4	46.2	57.2	67.1	72.2	66.8	59.2	45.1	30.9	27.0	46.8
1872	20.8	30.5	33.6	43.0	57.2	64.1	......	......	......	......	......	......	......
1873	28.0	......	34.6	......	......	......	......	......	......	......	......	......	......
1874	24.4	22.0	31.0	43.2	54.7	63.2	73.0	......	......	......	......	26.2	......
1875	23.1	22.7	29.3	43.3	52.9	61.6	68.2	69.6	61.4	49.8	34.8	24.9	45.1
1876	18.7	23.8	31.4	42.3	52.7	65.2	69.6	66.8	60.2	[46.0]	35.5	24.6	[44.7]
1877	22.4	29.0	43.1	44.4	53.6	60.8	70.5	67.7	59.3	46.8	34.5	24.2	46.4
1878	23.7	31.7	40.1	45.5	53.1	62.7	71.2	72.0	57.0	44.3	38.3	22.8	46.9
1879	22.6	33.1	[34.0]	49.7	56.3	61.5	68.8	[68.0]	[58.0]	47.0	29.9	26.2	[46.3]
1880	24.1	21.4	25.6	40.5	50.6	60.1	66.8	64.2	55.8	[46.0]	21.4	28.3	[42.1]
1881	22.7	31.4	35.9	48.5	56.4	63.2	69.1	66.6	54.0	43.6	[34.0]	[24.0]	[45.8]
1882	15.3	19.9	29.3	[45.0]	50.2	58.0	66.6	67.8	57.0	43.7	[34.0]	[24.0]	[42.6]
1883	......	......	35.3	......	45.6	55.4	......	......	......	......	......	......	......
Means	22.9	26.8	31.0	44.8	53.8	62.4	70.1	67.8	58.3	45.8	33.6	24.3	45.4

CORINNE, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[25.0]	41.0	44.0	40.8	58.6	72.1	82.2	76.2	66.2	56.8	40.2	24.9	[52.3]
1871	27.0	31.0	40.2	49.1	62.0	75.9	80.6	75.6	70.2	47.3	35.9	30.9	52.4
1872	27.5	35.6	41.1	46.2	59.3	71.3	72.3	73.3	60.5	49.4	30.1	31.8	49.9
1873	31.9	24.7	38.5	45.5	52.6	70.1	77.1	74.0	62.3	46.3	41.5	22.1	48.9

***Mean monthly and annual temperature at stations in Utah*—Continued.**

CORINNE, UTAH—Continued

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	26.2	23.3	31.7	49.9	65.5	71.1	83.8	79.0	65.2	57.5	40.4	31.6	52.1
1875	24.9	26.7	32.7	51.4	61.9	72.8	81.2	77.2	69.8	56.7	38.2	33.0	52.2
1876	25.2	30.9	36.2	50.6	59.8	72.7	79.1	73.8	66.6	52.5	35.8	25.6	50.7
1877	20.7	25.3	41.7	41.8	49.8	61.3	......	......	......	......	36.9	28.0	......
1878	25.6	35.2	46.8	52.8	60.0	73.9	82.9	82.0	64.6	44.6	40.0	25.9	52.8
1879	24.8	37.8	47.8	54.5	62.0	70.1	81.2	78.3	69.0	49.8	33.6	27.3	53.0
1880	24.8	24.4	32.0	47.6	57.7	70.5	78.0	75.8	63.9	49.3	27.3	31.2	48.5
1881	27.0	34.9	41.8	56.1	64.5	[72.0]	78.4	76.3	61.8	50.3	37.4	29.5	[52.5]
1882	30.3	22.2	35.6	47.0	60.6	72.6	80.0	80.8	65.6	45.8	33.6	31.4	50.4
1883	21.6	19.4	46.2	49.0	60.5	75.3	84.9	80.9	77.3	48.6	35.9	28.1	52.3
1884	22.9	26.5	39.2	49.5	61.4	72.7	77.8	77.4	59.5	51.6	39.1	32.9	50.9
1885	25.0	35.9	45.8	56.1	63.0	70.0	80.6	74.3	65.2	50.2	39.5	31.3	53.1
1886	26.9	37.7	37.8	52.0	67.6	74.6	84.8	81.5	64.0	64.2	29.5	33.1	54.5
1887	31.6	31.4	46.1	50.8	65.8	73.9	81.3	77.3	67.4	51.0	37.2	25.8	53.3
1888	16.1	34.1	38.6	58.2	63.5	73.9	81.5	78.6	72.0	53.6	39.7	31.8	53.5
1889	18.9	28.3	48.2	57.4	63.0	74.9	83.5	81.3	62.4	52.9	36.0	35.3	53.5
1890	20.0	30.6	39.4	53.5	66.2	70.5	......	......	......	......	......	......	......
Means	24.9	30.5	40.5	50.5	61.2	72.0	80.6	77.6	66.0	51.5	36.2	29.6	51.8

DOUGLAS, CAMP, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1862	......	......	......	......	......	......	......	......	......	......	......	31.7	......
1863	28.8	30.2	41.9	52.2	65.0	75.2	79.8	76.5	66.1	51.1	37.8	30.9	53.0
1864	29.0	35.2	41.5	51.7	61.6	68.3	77.8	78.1	63.2	[53.0]	39.5	31.3	[52.5]
1865	26.0	27.6	36.0	43.1	68.2	70.2	73.1	77.7	63.3	55.6	47.9	23.6	51.0
1866	28.3	33.5	43.7	48.0	58.5	[69.0]	[76.0]	[75.0]	64.8	55.6	43.4	37.4	[52.8]
1867	33.9	32.6	31.0	47.2	55.7	66.3	74.2	77.2	68.1	55.6	44.4	41.1	52.3
1868	23.2	27.1	41.5	50.0	54.0	66.1	74.7	75.2	64.4	59.6	41.5	33.0	50.8
1869	29.2	33.8	42.4	47.8	61.8	69.5	75.7	73.7	61.8	53.6	44.8	32.7	52.2
1870	31.7	36.4	34.4	49.2	57.8	68.0	[76.0]	70.3	60.2	50.6	43.4	26.8	50.4
1871	31.4	32.5	38.6	45.4	59.7	74.7	79.1	75.0	75.2	50.3	38.0	35.0	52.9
1872	30.5	36.8	40.7	44.5	58.4	68.8	73.7	73.3	61.8	53.6	32.4	32.5	50.6
1873	31.1	27.5	40.5	43.3	49.2	68.2	75.8	71.9	64.8	47.6	41.2	26.5	49.2
1874	29.4	27.3	32.5	45.7	60.7	66.8	76.3	72.6	62.1	54.2	39.6	35.3	50.2
1875	30.0	30.9	32.2	47.6	57.8	70.0	73.6	73.1	67.0	59.4	41.0	33.8	51.4
1876	26.5	33.4	35.9	48.4	55.8	71.8	77.1	71.1	68.4	55.2	39.3	26.2	50.8
1877	26.2	32.2	46.5	46.4	55.9	65.1	77.9	76.5	65.2	50.1	38.7	32.4	51.1
1878	29.4	31.6	45.1	48.5	54.7	[69.0]	78.3	78.8	61.2	48.3	43.0	28.3	[51.6]
1879	27.6	37.6	49.2	52.4	59.8	66.2	79.8	76.8	71.5	53.1	35.2	27.9	53.1
1880	28.8	25.7	32.1	45.1	[59.0]	67.5	73.3	73.0	63.8	51.3	27.7	31.7	[48.2]
1881	28.9	34.9	39.8	55.8	[59.0]	71.3	75.6	73.8	59.8	49.0	31.4	31.1	[50.9]
1882	22.2	26.4	37.6	44.2	59.2	68.2	76.8	78.0	[65.0]	43.3	[40.0]	29.8	[49.2]
1883	21.1	22.1	47.7	......	......	......	......	......	......	......	......	......	......
1889	21.0	20.0	48.2	53.7	58.1	71.8	81.2	77.9	61.5	54.0	38.8	39.7	52.9
1890	29.1	33.6	39.5	51.6	61.3	64.6	......	......	......	......	......	......	......
Means	28.0	31.3	39.9	48.3	58.7	68.9	76.5	75.0	64.7	52.6	39.6	31.8	51.3

DU CHESNE, FORT, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	......	......	......	......	......	......	......	......	......	......	......	8.9	......
1888	3.5	21.9	35.2	51.2	56.1	69.6	72.9	67.2	64.4	48.8	34.9	23.6	45.8
1889	6.8	15.4	42.5	52.6	57.0	67.6	73.2	72.2	59.3	48.8	29.9	33.2	46.5
1890	11.6	29.9	37.0	49.4	60.9	63.6	......	......	......	......	......	......	......
Means	7.3	22.4	38.2	51.1	58.0	66.9	73.0	69.7	61.8	48.8	32.4	21.9	46.0

FLOYD, CAMP, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1858	......	......	......	......	......	......	72.0	71.4	60.5	45.0	37.3	23.8	......
1859	17.7	32.0	34.0	47.4	60.1	78.5	76.4	72.1	58.4	50.7	36.3	20.3	48.6
1860	18.9	25.2	38.8	49.0	57.6	68.3	76.1	74.6	64.2	49.2	36.8	29.5	49.0
1861	21.6	27.5	40.6	49.0	60.5	72.1	80.8	......	......	......	......	......	......
Means	19.4	28.2	37.8	48.5	59.4	73.0	76.3	72.7	61.0	48.3	36.8	24.5	48.8

Mean monthly and annual temperature at stations in Utah—Continued.

FRISCO, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1885	......	......	......	......	......	......	72.5	70.4	63.3	54.2	39.5	35.0	......
1886	28.7	38.6	31.2	41.6	59.3	66.9	74.5	70.3	62.9	47.1	32.2	39.0	49.4
1887	31.9	28.4	45.1	43.6	56.2	66.8	72.2	69.9	63.8	50.6	42.9	26.6	49.8
Means	30.3	33.5	38.2	42.6	57.8	66.8	73.1	70.2	63.4	50.6	38.2	33.5	49.6

KANAB, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	......	......	......	......	......	......	......	74.2	66.4	59.4	56.6	38.3	......
1875	31.6	36.6	32.9	47.3	61.8	72.7	80.8	78.2	65.3	66.8	44.2	41.4	55.0
1876	33.6	36.7	38.8	51.1	60.9	72.9	77.0	72.7	69.9	62.2	46.3	39.3	55.1
1877	41.5	46.5	59.8	52.5	59.8	77.6	85.3	79.2	70.8	51.9	46.9	48.7	60.0
1878	44.2	47.1	[49.0]	51.3	[63.0]	83.8	83.9	80.9	70.3	60.7	50.6	[42.0]	[60.6]
1879	38.6	51.7	63.0	64.0	70.9	77.3	83.3	78.2	72.7	56.5	......	......	......
Means	37.9	43.7	48.7	53.2	63.3	76.9	82.1	77.2	69.2	59.6	48.9	41.9	58.6

KELTON, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1878	......	......	43.9	49.0	57.9	71.7	78.5	79.2	62.7	45.0	34.6	22.0	......
1879	21.8	36.1	45.5	54.4	60.6	68.9	79.5	74.5	65.1	46.0	32.8	26.5	51.0
1880	25.3	26.9	30.8	45.4	53.8	66.2	74.5	72.3	55.0	46.9	22.5	26.5	45.4
1881	23.9	36.1	37.4	54.1	54.8	[71.0]	78.4	[76.0]	55.5	43.5	29.5	21.4	[48.5]
1882	21.6	21.1	38.5	48.6	62.0	74.9	[78.0]	82.6	[61.0]	46.3	28.8	29.0	[49.4]
1883	21.1	19.3	43.6	44.8	57.5	72.4	77.7	76.4	66.2	43.5	34.7	24.8	48.5
1884	20.2	23.8	37.1	45.4	59.9	70.8	75.4	74.3	56.0	[48.0]	35.6	33.4	48.3
1885	21.4	38.6	45.3	55.6	62.4	67.8	75.7	71.6	63.3	47.3	40.8	33.3	52.2
1886	29.7	39.3	38.7	50.1	63.2	68.9	79.7	75.5	59.3	45.7	27.5	33.0	50.9
1887	34.4	31.0	44.0	49.3	63.6	72.9	77.7	71.5	60.9	49.2	33.5	24.0	51.0
1888	15.2	32.6	39.9	56.4	62.0	72.0	80.9	78.2	71.0	54.7	40.6	30.8	52.8
1889	17.9	27.7	46.7	55.3	64.7	77.4	85.0	81.2	60.9	55.7	35.1	35.3	53.6
1890	17.4	31.7	40.7	53.0	65.2	70.6	......	......	......	......	......	......	......
Means	22.7	30.4	40.9	50.9	60.6	71.2	78.4	76.1	61.4	47.6	33.0	28.3	49.5

LOSEE, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	65.1	66.1	73.0	70.0	58.4	48.3	33.3	34.3	......
1890	22.2	28.6	36.6	46.5	58.5	63.0	......	......	......	......	......	......	......
Means	22.2	28.6	36.6	46.5	61.8	64.6	73.0	70.0	58.4	48.3	33.3	34.3	48.1

MOAB, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	......	......	54.4	36.2	43.2	......
1890	30.7	38.8	45.4	[54.0]	68.8	71.5	82.7	74.6	65.3	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	55.5

MOUNT CARMEL, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1874	26.1	24.7	34.1	39.3	52.9	67.2	80.3	75.3	72.9	62.9	42.3	35.4	51.1
1876	23.3	28.2	28.9	44.4	54.0	73.2	79.9	70.5	74.7	61.3	52.2	49.4	53.3
1877	......	45.4	58.5	56.6	58.3	79.8	60.6	81.3	69.4	44.6	......	......	......
1878	40.5	47.6	52.3	51.0	64.1	77.9	78.1	......	......	......	......	......	......

Mean monthly and annual temperature at stations in Utah—Continued.

MOUNT CARMEL, UTAH—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	75.2	69.5	55.7	48.2	33.4	35.6	......
1890	23.2	29.2	35.2	41.2	51.0	51.6	......	......	......	......	......	......	......
Means	28.3	35.0	41.8	46.5	56.1	69.9	74.8	74.2	68.2	54.2	42.6	40.1	52.6

MOUNT PLEASANT, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	59.1	45.2	42.6	27.7	29.1	......
1890	15.0	22.5	26.8	36.5	46.6	50.8	62.4	......	......	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	38.7

NEPHI, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1883	......	......	......	41.7	54.2	67.4	71.7	68.4	62.4	41.1	32.6	28.3	......
1884	22.5	25.0	35.5	42.2	51.3	63.8	66.9	64.3	54.8	46.1	33.2	30.7	44.7
1885	23.1	31.3	41.7	46.4	53.0	61.0	72.2	68.9	......	......	......	......	......
1889	......	......	......	......	57.9	68.2	77.8	76.8	59.5	51.0	34.8	37.1	......
1890	20.1	29.1	38.4	48.3	58.6	62.0	......	......	......	......	......	......	......
Means	21.9	28.5	38.5	44.6	55.0	64.5	72.2	69.6	58.9	46.1	33.5	32.0	47.1

OGDEN, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[28.0]	49.6	41.2	57.6	63.6	72.9	78.9	71.4	66.8	59.2	44.9	31.9	[55.5]
1871	33.3	34.4	41.0	52.1	65.7	74.7	79.9	70.6	71.6	51.5	29.3	31.1	52.9
1872	31.5	34.0	42.0	53.5	67.3	74.2	75.6	72.5	65.2	56.4	35.9	35.0	53.6
1873	35.4	31.9	45.5	57.7	54.9	73.1	81.7	[77.0]	72.6	55.1	47.8	26.8	[55.0]
1874	31.1	28.5	36.2	55.8	68.9	73.6	83.6	80.4	69.7	56.2	41.9	30.4	54.7
1875	26.5	29.2	33.0	53.9	63.6	72.2	78.7	77.6	70.6	57.5	40.2	35.4	53.2
1876	28.3	31.7	39.2	51.0	55.8	69.3	79.0	74.5	68.7	57.6	42.4	30.3	52.3
1877	29.0	35.0	50.7	51.2	60.7	69.7	......	......	......	......	42.0	33.1	......
1878	30.2	38.1	46.8	51.3	57.0	73.8	82.8	83.4	62.3	46.3	43.6	27.5	53.6
1879	27.0	39.6	50.7	57.3	63.2	69.8	81.9	77.4	67.3	49.6	36.9	27.4	54.0
1880	26.6	24.7	30.7	50.5	61.8	75.3	81.1	77.8	60.2	45.9	23.6	29.4	49.0
1881	29.6	40.5	43.5	58.7	[63.0]	[72.0]	77.6	76.1	[66.0]	55.4	37.3	35.5	[54.6]
1882	29.3	32.6	36.0	48.9	60.4	70.6	81.4	79.8	62.6	45.8	34.0	31.5	51.1
1883	23.7	21.9	47.4	48.4	62.0	75.3	81.9	78.3	69.1	46.1	37.1	29.1	51.7
1884	24.4	28.4	41.4	50.7	61.3	75.9	78.8	77.2	61.3	51.6	39.5	34.9	52.4
1885	25.8	37.1	45.0	56.3	62.5	71.0	79.8	77.1	66.2	51.6	43.1	33.6	54.1
1886	28.8	38.9	38.2	52.8	67.8	75.4	84.3	79.8	63.9	51.2	33.6	37.2	54.3
1887	34.0	36.2	47.0	51.9	67.1	73.5	80.3	78.5	65.5	51.1	38.2	27.9	54.3
1888	19.9	37.5	40.6	57.8	63.9	74.0	83.1	79.4	74.4	54.2	39.9	32.0	54.7
1889	19.5	30.6	46.5	54.2	61.3	70.8	80.6	77.6	59.3	49.6	37.9	41.0	52.4
1890	27.4	30.2	35.6	49.1	61.3	61.8	......	......	......	......	......	......	......
Means	28.1	33.8	41.8	53.4	62.7	72.3	80.6	77.2	66.5	52.2	38.5	32.0	53.3

PROMONTORY, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[21.0]	32.0	36.4	50.0	57.2	67.6	73.7	70.8	61.1	[49.0]	[33.0]	21.1	[47.7]
1871	23.1	30.3	36.6	43.6	54.4	[69.0]	79.8	69.4	65.8	43.6	31.1	27.5	[48.3]
1872	22.4	32.0	37.1	45.3	56.2	67.9	74.1	74.8	64.7	56.1	23.2	21.4	47.9
1873	23.9	21.5	45.5	45.0	57.4	71.2	79.0	79.0	63.3	45.9	39.0	20.9	49.3
1874	21.3	20.7	32.7	49.9	[58.0]	67.6	85.3	79.0	[62.0]	[49.0]	[illegible]	27.9	[49.4]
1875	22.9	28.2	32.0	48.2	58.2	73.6	81.1	77.2	60.9	50.3	38.8	33.6	50.4
1876	24.7	31.0	36.2	50.6	54.2	70.8	78.1	73.2	63.9	55.1	36.5	22.1	49.7
1877	24.6	29.6	47.0	49.3	59.2	68.3	......	......	......	......	33.3	22.6	......
1878	25.2	33.1	43.2	49.7	55.6	69.3	78.8	76.3	53.6	40.2	32.7	16.6	47.8
1879	17.0	30.7	41.8	49.1	56.1	64.0	[78.0]	72.4	64.3	45.3	27.9	21.0	[47.3]
1880	21.2	21.1	30.8	41.6	52.9	65.7	69.1	73.6	55.3	52.5	17.1	29.4	[44.5]
1881	23.6	29.8	38.2	[48.0]	61.0	71.6	78.1	71.2	59.0	47.8	29.9	25.6	[48.8]
1882	16.2	22.7	33.8	45.7	57.9	72.8	82.7	82.4	67.1	43.4	36.0	30.9	44.5
1883	7.8	20.2	46.5	[48.0]	59.1	76.0	78.5	78.1	62.6	41.7	30.3	24.3	[47.8]
1884	21.5	22.9	37.6	46.9	58.4	72.5	79.8	71.6	61.8	52.3	[33.0]	26.1	[48.7]
1885	15.7	38.1	41.3	55.3	62.9	70.7	79.0	78.5	67.5	56.2	44.2	32.6	53.8
1886	24.3	34.3	34.8	53.2	66.5	75.7	83.8	80.6	63.7	49.1	29.0	31.8	52.2

Mean monthly and annual temperature at stations in Utah—Continued.

PROMONTORY, UTAH.—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1887	28.6	26.8	41.2	43.4	57.7	69.2	77.7	74.4	63.8	51.8	34.0	22.9	49.3
1888	14.6	[28.0]	35.2	[49.0]	[58.0]	58.8	71.8	71.5	67.2	53.7	38.0	26.7	[47.7]
1889	26.6	26.0	41.2	54.1	56.3	66.9	79.0	75.7	60.1	51.8	35.8	33.9	50.9
1890	17.9	29.9	38.2	49.9	60.0	62.8	......	......	......	......	......	......	......
Means	21.3	28.1	38.7	48.5	58.2	69.2	78.3	75.4	62.5	49.2	33.0	25.9	49.0

RICHFIELD, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1889	......	......	......	......	......	......	......	70.2	57.8	51.4	31.7	37.0	......
1890	......	......	40.8	50.0	59.4	66.0	......	......	......	......	......	......	......
Means	......	......	......	......	......	......	......	......	......	......	......	......	......

ST. GEORGE (HEBERVILLE), UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1861	31.3	[41.1]	......	......	......	......	......	......	......	......	......	......	......
1863	[31.0]	38.5	......	......	......	......	88.8	82.1	......	......	......	......	......
1864	......	......	......	......	68.0	77.4	83.8	84.4	75.8	65.4	52.4	42.6	......
1865	40.9	39.4	48.6	56.5	79.6	81.4	81.8	86.4	72.4	59.8	57.5	34.3	[61.8]
1870	......	......	......	......	[78.7]	[85.9]	......	......	......	......	......	......	......
1880	......	......	......	......	......	......	......	......	......	56.1	......	......	......
1889	......	......	......	......	......	80.6	88.3	85.7	72.8	61.6	46.6	46.8	......
1890	37.1	43.6	51.6	......	......	78.8	......	......	......	......	......	......	......
Means	35.1	40.6	50.1	56.5	75.4	81.4	85.7	84.6	73.7	60.7	52.2	41.2	61.4

ST. MARY'S, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1865	......	......	......	......	......	63.1	66.9	70.2	59.6	46.8	40.5	14.5	......
1866	19.2	26.5	35.1	36.2	56.2	54.7	71.2	66.7	59.5	47.5	38.1	25.1	[44.7]
1867	......	25.6	20.9	37.2	53.2	64.2	73.2	75.1	......	......	......	......	......
Means	19.2	26.0	28.0	36.7	54.7	60.7	70.4	70.7	59.6	47.2	39.3	19.8	44.4

SALT LAKE CITY, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1850	26.4	32.2	35.6	48.0	65.2	71.3	80.6	......	......	......	......	......	......
1853	......	......	......	......	......	......	......	......	......	......	......	36.6	......
1854	24.2	35.5	40.5	52.4	......	......	......	......	......	......	41.7	31.6	......
1855	30.8	37.4	43.2	......	......	......	......	......	......	......	......	......	......
1857	......	......	44.2	49.7	58.0	65.5	74.0	74.2	61.7	53.0	......	......	......
1858	......	......	......	......	......	......	......	......	62.0	55.0	37.8	......	......
1859	25.0	40.3	41.0	45.7	57.3	76.3	79.3	76.7	61.3	56.7	38.7	22.0	[51.7]
1861	22.2	......	......	......	......	......	......	......	......	......	......	......	......
1863	......	27.4	......	......	......	73.0	......	......	......	......	......	......	......
1864	26.6	31.2	41.4	52.4	63.3	68.4	78.3	77.6	65.6	53.4	40.0	30.9	52.4
1865	23.4	26.1	37.2	43.6	67.8	69.9	72.3	76.6	64.3	56.0	45.1	22.6	50.4
1866	23.4	31.7	44.2	48.9	58.2	63.5	76.1	72.4	65.0	55.6	45.0	38.1	51.8
1867	......	32.6	......	......	......	67.3	74.0	76.7	66.8	56.1	......	41.1	......
1868	24.2	......	......	......	55.4	66.0	......	73.0	......	......	......	......	......
1869	......	......	......	......	......	......	75.6	75.5	......	......	43.9	30.5	......
1870	31.8	39.0	......	51.2	......	71.0	75.4	73.4	......	......	......	......	......
1871	32.8	......	......	......	......	......	......	......	......	......	......	......	......
1872	......	......	......	......	......	72.1	76.3	75.0	62.4	62.5	37.6	34.6	......
1873	34.2	31.8	45.7	47.6	51.1	71.3	74.9	72.4	66.9	46.6	38.8	21.7	50.5
1874	......	......	......	47.3	60.7	67.2	77.5	74.1	62.5	56.1	43.0	33.7	......
1875	29.6	33.9	35.2	49.5	59.0	68.2	73.8	75.1	67.7	59.1	42.1	35.8	52.4
1876	30.5	35.8	38.0	49.5	55.8	68.6	75.1	72.4	65.6	55.8	40.6	26.9	51.2
1877	27.8	33.9	47.9	47.8	55.1	64.7	76.8	75.3	64.5	50.7	40.3	32.2	51.4
1878	30.4	37.4	46.4	49.2	55.2	68.1	76.3	77.6	60.5	48.5	43.3	30.1	51.9

Mean monthly and annual temperature at stations in Utah—**Continued.**

SALT LAKE CITY—Continued.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1879	29.1	40.0	49.6	52.9	58.5	65.[illegible]	77.0	75.6	68.7	52.2	36.4	30.2	53.0
1880	29.1	26.9	33.7	46.3	53.8	66.4	73.5	72.7	63.8	51.8	30.3	34.4	48.6
1881	32.4	38.4	41.7	53.3	60.1	70.0	74.9	73.1	59.8	50.2	33.5	33.6	51.8
1882	24.2	27.6	36.8	46.0	56.7	67.0	74.5	76.0	64.5	47.1	35.4	35.0	49.2
1883	24.9	24.2	47.0	45.8	57.0	70.5	75.9	76.4	69.3	46.1	39.0	32.9	50.8
1884	29.1	31.3	40.6	48.0	57.7	68.7	73.4	72.6	58.8	52.6	42.1	35.5	50.9
1885	28.0	36.1	44.9	52.3	56.3	63.8	75.7	73.3	64.8	54.7	43.9	34.0	52.3
1886	29.1	39.8	36.6	47.5	61.6	68.5	78.3	75.6	62.3	51.8	31.3	36.6	51.6
1887	33.2	34.0	47.1	48.6	60.4	68.7	75.3	74.0	65.7	52.5	43.7	29.7	52.7
1888	23.2	38.5	40.4	55.5	58.6	68.8	76.6	74.8	70.6	54.0	41.6	35.8	53.2
1889	21.4	29.8	47.7	55.2	58.8	70.3	78.4	77.4	60.6	54.2	39.0	39.6	52.7
1890	24.8	33.7	39.5	50.4	61.3	64.[illegible]	......	......	......	......	......	......	......
Means	27.6	33.4	41.8	49.4	58.6	68.5	76.1	74.8	64.3	53.4	39.8	32.7	51.7

TERRACE, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1870	[22.5]	34.0	34.2	56.1	62.9	74.9	86.8	81.8	63.7	54.8	[35.5]	13.5	[51.7]
1871	26.6	32.7	39.7	49.7	61.3	78.5	82.5	78.8	68.5	48.3	35.7	29.1	52.6
1872	31.4	34.5	43.8	50.8	63.3	79.2	81.3	65.6	64.9	47.8	24.5	[illegible]3.9	51.8
1873	31.1	......	......	......	......	......	......	......	......	......	......	......	......
1874	[22.5]	[30.5]	33.4	50.2	67.7	78.8	89.3	78.7	64.9	46.5	38.4	25.6	[52.2]
1875	21.2	23.9	28.3	46.0	50.8	69.4	77.6	76.6	67.9	56.9	35.6	28.5	48.6
1876	17.7	33.7	48.4	70.2?	69.9	77.8	78.8	79.0	73.1	56.6	38.8	21.6	55.5
1877	21.2	32.8	50.0	......	61.6	70.4	......	......	......	......	30.6	22.3	......
1878	18.2	29.6	42.8	49.0	52.1	79.3	[82.0]	77.1	60.6	45.8	33.1	17.0	[48.9]
1879	23.3	37.1	47.6	56.0	59.5	69.2	79.1	75.5	66.4	49.2	28.7	24.7	51.4
1880	23.8	26.2	35.2	47.0	55.0	69.3	78.5	74.9	66.0	50.1	24.1	28.4	48.2
1881	26.1	32.0	40.0	55.4	62.2	73.2	79.9	74.3	60.7	49.2	32.2	25.8	50.9
1882	13.9	16.0	37.7	45.4	50.6	66.1	[82.0]	79.7	62.1	[53.0]	31.7	33.6	[47.6]
1883	20.2	23.8	51.1	46.1	54.8	70.9	78.2	[78.0]	72.2	48.3	34.9	30.0	[50.7]
1884	25.3	25.6	40.7	47.0	67.0	70.1	78.4	74.4	52.0	[53.0]	40.9	30.9	[50.4]
1885	25.6	37.1	43.3	57.3	61.8	60.8	80.8	78.4	68.5	60.4	46.0	31.8	54.3
1886	26.5	40.7	37.4	49.6	64.2	70.8	83.9	82.8	71.8	53.7	34.2	35.9	54.3
1887	31.0	28.7	47.8	51.3	63.6	78.5	86.1	79.4	71.3	67.1	43.8	23.1	56.0
1888	9.8	36.3	50.1	62.5	71.9	77.1	83.9	83.8	78.5	[53.0]	44.2	37.0	[57.3]
1889	18.1	26.0	51.3	56.2	63.6	76.5	85.0	81.0	64.8	57.5	41.6	34.2	54.6
1890	15.8	29.7	40.0	59.4	68.8	71.8	......	......	......	......	......	......	......
Means	22.5	30.5	42.1	52.9	61.6	73.1	81.9	77.8	66.6	52.8	35.5	27.7	52.1

WANSHIP, UTAH.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1866	......	......	......	......	......	56.2	68.3	66.1	59.4	47.2	37.9	......	......
1867	24.8	25.0	20.0	37.1	51.8	62.5	70.2	73.3	63.4	49.6	38.8	35.3	46.0
1868	14.2	24.4	34.6	......	......	61.0	72.1	70.5	......	54.2	......	26.8	......
1869	20.0	27.4	36.4	......	......	......	......	......	......	......	......	......	......
Means	19.7	25.6	30.3	37.1	51.8	59.9	70.2	70.0	61.4	50.3	38.4	31.0	45.5

APPENDIX No. 65.

CLIMATE OF ARIZONA, WITH PARTICULAR REFERENCE TO THE RAINFALL AND TEMPERATURE, AND THEIR INFLUENCE UPON THE IRRIGATION PROBLEMS OF THE TERRITORY.

SIGNAL OFFICE, WAR DEPARTMENT,
Washington City, December 4, 1890.

SIR: Acting under your orders, which included a copy of the resolution of the House of Representatives, I have prepared a report upon the climate of Arizona. The text of this I have the honor to submit to you, together with tables of rainfall and temperature, and charts, as noted below.

When published as an individual monograph, after the course you followed in publishing the report on the climate of Nebraska, it will be possible to distribute to the citizens of Arizona only such matter as immediately concerns them, and there will thus be effected a most considerable saving of the public funds. Your own review of the broad principles and general features of the region at large will be an indispensable introduction to the more particular and local examination, which alone has been within my power.

Concerning the report, the tables, and the charts, a few words may be said. The tables present the records of rainfall and temperature noted at the several stations which have been maintained in Arizona for less or greater periods. In some cases, where otherwise valuable records were briefly interrupted, their continuity has been maintained by interpolation of mean values, a justifiable approximation, without which climatic examination of many districts would have proved impossible. Such interpolations are clearly indicated by brackets.

The maps have been provided with systematic contours of altitude derived from the unpublished data of the U. S. Geological Survey, which information was put at the disposal of the Signal Service through the kind personal interest of Mr. Henry Gannett, of that survey.

In the text of the report, attention has been particularly directed upon such climatic factors as seemed pertinent to the scope of the inquiry which was especially authorized, as a contribution to the study of irrigation within the Territory, on such data as properly are included in the province of the Signal Service. Other climatic features have been considered solely as collateral to this main topic, and have received attention at greater or less extent according to their influence upon the rainfall. There have thus been introduced incidental investigations of temperature, winds, and evaporation. In general, it is to be said that the memoir is primarily designed to present to the last degree of accuracy climatic facts of record up to date, in order that not only may the irrigation problem be studied with a full acquaintance with the facts of nature concerned in such study, but that the data here presented may serve as a basis for future study of the Arizona climate, and possibly interest yet other citizens of that growing Territory to provide still more material by undertaking voluntary observations. Secondarily, an effort has been made to harmonize all this mass of material into a consistent review of the climate, with particular presentation of certain preponderating influences. It is believed that no statement has been made which is not amply justified by the existing data, yet it is possible that, at some later period, the mass of data may become so much more representative of the entire Territory that the present memoir will be brought under rigid review. In that case it is confidently expected that while some statements may be found to need modification, the general tone of the results herein attained will receive confirmation.

The discussion of the scientific meteorology of the region has been reserved for the memoir of like nature which deals with California. In that an attempt has been made to explain the causes of the peculiar seasons of the Pacific States and Territories, and to show their intimate correlation with the climatic laws which rule the whole United States.

Very respectfully,

W. A. GLASSFORD,
Second Lieutenant Signal Corps, Signal Officer and Assistant.

CHIEF SIGNAL OFFICER.

ARIZONA.

INTRODUCTION.

Any inquiry into the reclamation of lands at present arid in Arizona would be essentially incomplete which confined its scope to the mere noting of the position, area, and character of the soil capable of such reclamation, of the amount of water which may be drawn from the existing sources of supply, and of the engineering problems presented in the construction and maintenance of dams and other appliances for collecting and storing the waters, and of aqueducts, flumes, and other conduits to bring the water upon the soil which so greatly needs it. These are indeed of prime importance. It is necessary to comprehend clearly these factors, the reclaimable area, the hydraulic potential of the rivers and other streams, and the ease or difficulty, as a problem of pure engineering, of applying the hydraulic potential to the reclaimable area and transforming its aridity into fruitful fields. Yet, important as are these factors of the inquiry, they are not ultimate. They belong naturally in the province of the geographer and the engineer. They are results; their determining causes must be closely studied before it becomes possible to appreciate their full bearing, and it is this study of original causes which may be expected from the Signal Service.

The rich alluvial bottom lands of the valleys of the Gila, the Hassayampa, the Colorado, the Rio Verde, the Salt River, are the objects of the attention of the investor and the settler who can claim and command the services of engineering science. The causes are to be sought by the meteorological student, who will find them in the physical geography of the district and its hyetophysics. The origin of every grain of humus in the basins of the lower rivers is to be found on the jagged mountain peaks, on the bare plateaus, and in the eroded cañons of the central and northern portions of the Territory; the origin of every drop of water that flows to waste upon the shoals of the Gulf of California, of every inch of water that by wise forethought has been applied to the moistening of a soil, so rich as to need no reinforcement of artificial fertilizers, must be sought in the winter and summer rains, in the lingering mountain cap of snow, and in the destructive suddenness of the so-called cloudburst.

These are the elements of the problem, which must be presented briefly and succinctly in order that it shall be clearly appreciated from the outset, that:

(1) The causes which have produced the alluvial bottom lands are of continual and present operation, and are to be counted on to restore all waste, whether it be the molecular loss of soil washed away as detritus or the chemical waste of soil depauperated by the growth of crops.

(2) That these causes must be accepted as constant factors, not to be altered or avoided, but whose action may be diverted to channels which shall aid rather than retard the enterprise of human industry.

It is, then, a necessary preliminary to the study of the arid land and its availability for reclamation, that a presentment be made of the essential features of the district (which it happens is very nearly coterminous with the Territory), of the phenomena of aqueous precipitation and of climatological data incidental thereto, which may be properly comprehended under the general designation of hyetophysics; and, finally, of the manner in which these mutually interacting forces combine to produce the resultant known as the arid land of Arizona.

PHYSICAL GEOGRAPHY.

It is well within limits to remark that this Territory presents the problem of rain catchment and water storage and economical distribution, together with notable reclaimability of the land to be irrigated, in terms of almost ideal simplicity. Not a single component of the problem needs determination; every one is evident, and the answer is but the accurate sum of known quantities.

This is true despite the great area of the territory. The principle which holds good on every farm where water is drawn a few yards from spring or pool is here equally plain, although every factor is magnified a thousand fold: for yards read miles, and instead of a single farm consider an area as great as that of Italy, double the measurement of the six New England States combined. Italy numbers its drainage basins by the score, New England by the dozen, Arizona but by a single pair. If extreme simplicity marks the river systems the mountain system is no more complex. It is this uniformity of the lasting determinants of the character of the land which has made the study of the irrigation potentialities of Arizona at once so plain and so interesting, and which has brought it to pass that this study must take rank as an almost absolutely necessary primer to the study of lands where the same factors are presented in far more complex combinations, and where occur many complications which must be eliminated.

This simplicity plainly appears from the summary topical arrangement which it is possible to make of the physical data of the district under consideration.

Orography.—The axis of the mountain system of Arizona is remarkably well defined and appears with the utmost distinctness, not only in the general trend of the main mass of elevation, but also in minor ranges, and notably in detached spurs often widely separated from the plateau system to which, on the score of altitude, they may claim to belong. With sufficient accuracy to satisfy all legitimate demands of the present inquiry, the direction of the mountain axis may be placed at northwest and southeast. That this is true in the main system will at once appear from a glance at any map; its corroborative repetition in the detached spurs is sufficiently noteworthy to call for a moment's consideration. Thus upon the bench or mesa of less than 3,000 feet of altitude there appear two interesting groups of long and narrow mounts which exhibit most unmistakably the characteristic axes. One group which flanks on the west the valley of the Rio Santa Cruz, in Pima County, contains fifteen members rising to an altitude of more than 3,000 feet from a mesa 2,000 feet high; of this number six reproduce the distinctive trend of the system, six more vary from it but slightly, and no more than three present a divergence as great as 60°. A still more characteristic butte system on the same horizon is found in the Gila Valley, just north of latitude 33° in Maricopa County.

Of the twelve members of this system, four rise from a mesa of 2,000 feet of altitude to a height of more than 3,000 feet, the remainder rise from a bench 1,000 feet lower to a height of 2,000 feet, and two of these latter to more than 3,000 feet; not one member of the system diverges from the characteristic axial direction. The table-land of 3,000 feet is crowded with sierras of 5,000 feet and upward, whose direction indicates beyond a chance of doubt the prevalent mountain-making forces which have here been at work. Even the lofty plateau of 5,000 feet shows in two systems six examples of considerable mountain masses of from 7,000 to 9,000 feet, rising at one point to more than 13,000 feet; the systems themselves and their individual members show this same axial inflection. Nor is this confined to surfaces of elevation only, many of the rivers which flow in cañons of erosion take the same bearing; for instance, the northwesterly flow of the Colorado Chiquito, in Yavapai and Apache counties, of the San Pedro in the counties of Cochise and Pinal, of the Gila in Graham County, and the Santa Cruz in Pinal, while the southeasterly flow of the Rio Verde and many of the confluents of the Salt River in the middle of the Territory, shows the same direction but with opposite sign. In passing it is well to note an important result of this uniformity of the mountain axis carried out consistently over more than 500 miles, and one which will receive more extended consideration in its proper connection, and that is that the prevalent moisture-bearing wind is from the southwest, at right angles to the broad side of the mountains, and thus encounters the maximum bluff surface. In other words, the passage of the rainy winds across Arizona is by no means an easy gliding over an inclined plane, but the laborious ascent of a flight of steps.

This Arizona link in the western member of the great continental V divides the Territory in the characteristic northwestern direction at the altitude of 3,000 feet. The division is not merely one of contours and rock masses, the line which marks the altitude of 3,000 feet marks with equal distinctness an important difference in the soil, an astonishing difference in climatic features, and so great a difference in commercial and economical value that it at once suggests the idea that nature has here balanced means with end. The partition is unequal, southwest of the dividing line, roughly speaking, one-third of the Territory lies below the level of 3,000 feet, northeast of the same line two-thirds of the Territory is lofty plateau. The plain has the fertile soil and the minimum of rain, the plateau receives abundant rain upon its rocky surface and retains almost none of it, the plain is the garden, the plateau is the reservoir of water and the storehouse of life for the soil on a grander scale than any efforts of man could accomplish.

In the present inquiry this term, the plain, will be used with definite intention as including that southwestern portion of the Territory lying below the contour of 3,000 feet and embracing the counties of Yuma and Pima and most of Pinal and Maricopa, together with narrow prolongations along the valleys of the Hassayampa, the Agua Fria, the Verde, the Salt, the San Pedro, and the upper waters of the Gila. Save a small number of exceptional instances whose acreage is inconsiderable in comparison, the plain thus defined contains the lands economically available for reclamation.

As an intermediate or transitional step before reaching the plateau of Arizona there exists a bench of from 3,000 to 5,000 feet, which, from its geographical and physical relations to the high plateau which covers fully half the Territory, may be distinguished as the proplateau. It closely follows the axial inflection of the mountain system, although its continuity is somewhat interrupted by more or less detached spurs of its higher neighbor. Across the central portion of the territory it preserves with considerable uniformity a mean width of less than 100 miles. Widening at the cañon of the Gila it covers the whole southeastern corner of the Territory. As geographically it occupies an intermediate portion between the high and the low, so climatographically it occupies a similar position and combines in its valleys the fertile soil of the plain with the abundant rainfall of the plateau.

More than half the Territory is measured above the 5,000-foot contour and forms an approximately level mesa which may be distinguished as the plateau. Though for the most part level, there are extruded from the plateau two systems of summits rising above the 7,000-foot line, and in one case attaining the altitude of 13,000 feet. That these summits play a part in the climatology of Arizona similar to the familiar mechanical functions of the governor in the steam engine is incontestable, the measurement of the influence is necessarily imperfect at present, and will provide a problem whose discussion and solution will prove of the utmost interest to the meteorologist.

Potamography, the river systems.—Two great river systems are distinctly noted in Arizona, divided as to their watersheds by a height of land whose direction must be discussed under two arguments according as it is traced in the plain and proplateau or in the plateau.

North of the great divide is the watershed of the Colorado, embracing approximately half the Territory and scored by a small number of affluents of the river which gives the watershed its name. Few in number and small in size they serve amply to carry off the water of an area of scanty rainfall. The more important members of the system in order down the course of the Colorado are the Rio de Chelly, draining through the San Juan River of Utah the district watered by the rains which are precipitated by the influence of the highlands of the province of Tusayan and the land of the Navajos, the Colorado Chiquito draining an area which receives its rains from the northern face of the height of land, Cataract Creek draining the area influenced to the north by the San Francisco mountains, and, finally, Bill William's Fork which, through the proplateau and plain, drains the face of the plateau to the west of Prescott in a portion of Yavapai County and throughout the county of Mohave.

South of the great divide is found the much more important watershed of the Gila and a river system of many confluents, each of which is of sufficient engineering and economic importance to need consideration as possessing an independent though tributary watershed of its own.

These tributary members of the system are, in order down the Gila's course, these: the Upper Gila watershed, embracing Graham County and the northern portion of Pinal; the two southern members, the San Pedro and Santa Cruz watersheds, of which the San Pedro embraces Cochise County and southeastern Pinal, and the Santa Cruz

embraces eastern Pima and vanishes in southwestern Pinal; the three northern members are the watersheds of the Verde and Salt, the Agua Fria, and the Hassayampa; the Verde and Salt watershed covers the county of Gila, an important portion of Apache and Maricopa and much of Yavapai; the Agua Fria watershed in Maricopa and Yavapai is included within the Verde system, and the Hassayampa watershed within the same counties forms a narrow but fertile valley system paralleling the Agua Fria; last of all is the watershed of the Lower Gila, which embraces the agricultural wealth of Pima, Maricopa, and Yuma.

The direction of the height of land which forms the great divide between the watersheds of the Gila and Colorado must, as has been said, be discussed under two arguments. That portion of it which lies within the plain and proplateau is traced with considerable exactness perpendicular to the face of the plateau and the mountain axis. Upon the plateau itself it is drawn with a somewhat free hand in the direction of the mountain axis which has already been shown to play so considerable a part in the present inquiry. The line thus drawn does somewhat more than serve to show the division between the rivers of the north and the rivers of the south; examined in correlation with the isohyetal curves it indicates a modifying circumstance which will receive further consideration. It suffices here to note that the maximum of rainfall is found with interesting regularity to the southward of the divide. North of it the rivers flow for the most part in deeply eroded cañons, south of it are level valleys and basins which it is clear have within recent geologic time contained immense inland seas of the order of Lake Bonneville, of the similar region immediately to the north. One such basin is clearly discernible in the region where Yavapai and Apache corner upon the county line of Gila, a basin known as the Tonto Basin.

PRECIPITATION.

In the study of the precipitation phenomena of Arizona preliminary note should be made of a correction which must be of constant application in all computations, with one exception hereinafter expressly made and discussed, a correction of quite uncertain amount but of uniformly positive sign. The need for this correction arises from the fact that the stations of meteorological observation are for the most part in valleys or cañons while the heavy rains occur upon the tops of the mountains or at least high up on their slopes. It is a matter of frequent occurrence in the experience of every observer to note an absolutely dry rain gauge at the point of observation while the surrounding mountain tops are black with storms and every *arroyo* is filled with a torrent of muddy water. Nor is this conclusion confined to the mere sight of showers which go unmeasured. During the winter the most casual observer of the streams sees periods of high water amounting at times to turbulent flood, which are so little to be accounted for by the record that the conclusion is irresistible that existing records indicate only a fraction of the actual precipitation which can be relied upon for water storage and that these data represent perhaps the minimum quantity of the rainfall. Yet despite this known disproportion of the recorded and actual efficient rainfall it will be shown in this discussion that the measured amounts are sufficient to supply water for the irrigation of much more land than the acreage known to be available.

Mean annual precipitation.—The division of the Territory by contours of altitude into the markedly distinct regions to which have been applied the terms plain, proplateau, and plateau serves equally well to mark the division between two radically variant systems of isohyetal curves. The line of demarcation between the plain and proplateau which in nature is plainly indicated by cliffs and bluffs undergoes no change at all when transferred to the meteorological chart as the curve of 10 inches of annual precipitation, and in the one case as well as in the other it reproduces the characterizing axial inflection of the mountain mass. The plain, then, the entire southwestern portion of the Territory, has been marked off by nature not only in walls of rock, but in water as well, to receive consideration by itself.

It has no great mountain heights nor large masses of elevation. With gentle slopes it falls off toward the sea level of the Gulf of California. Because of this absence of mountains it may be considered as almost exempt from the operation of the otherwise constant correction just noted, and on this account the lines of precipitation drawn upon it may be held to be reasonably accurate. Two such curves below the line of 10 inches may be indicated with interesting results. The curve of 6 inches in Pima County follows quite closely the contour of 2,000 feet under the directing influence of the Quijotoa Mountains, then reaching the Gila Valley below the Maricopa divide, it follows the river for some distance and finally passing to the eastward of the Castle Dome Mountains runs northward in the Colorado Valley and out of the Territory at Fort Mojave. The curve of 4 inches may be drawn with close fidelity to the contour of 500 feet both in the valley of the lower Gila and the Colorado as far as the mouth of Bill William's Fork. Upon this low plain the rain records approximate the absolute minimum of the world. It is from the reports of early travelers in this region, as rainless as the Saharas or the central plains of Australia, that has sprung the common belief that Arizona was agriculturally worthless because of its aridity. Hunters and trappers in search of game, emigrants wearily accepting the desert as the hard path leading to the promised fatness of California, prospectors seeking placers and pockets had neither time nor inclination to think of aught but the means of protection against the Indians. They found their road lying over sandy plains where springs were far away and where the sky was seldom clouded with rain. Carelessly they called the land a desert, carelessly their hasty decision spread, and now this prejudice founded on ignorance and faulty observation yields but slowly to the argument of facts.

The proplateau is so narrow a strip for the greater part of its length and so vestibular in its relation to the plateau that in the absence of climatic data it should be provisionally included in the great plateau mass which overshadows it. This may well be done with all that portion lying northwest of the Gila. The southeastern expansion of the proplateau embracing portions of the counties of Graham, Pinal, and Pima and the whole of Cochise is so marked by two systems of extrusive highlands, each composed of a considerable number of extensive masses of

elevation reaching in every case the altitude of the plateau and in some cases 1,000 or 2,000 feet higher, that this region may be rationally included in the discussion of the rain-making influence exerted by the extrusive summits of the plateau.

Turning next to the plateau which covers more than half the Territory, and examining the correlation of its isohyetal lines with such other physiographic curves as have already been indicated in the present discussion, an interesting correspondence becomes at once manifest. With one exception the isohyetal curves tend to follow the axial inflexion of the mountain mass. With sufficiently remarkable regularity the curves of annual rainfall, amounting to more than 10 inches, fall quite to the south of the great divide and thus indicate for the Gila watershed a considerable superiority of water supply over the Colorado system. (It should be carefully borne in mind that the terms of the discussion limit this statement restrictively to that portion of the Colorado system alone which is comprehended within the territorial limits of Arizona and that no reference is intended or allowable to its watershed in Utah or Colorado.) Not only is this true of the Gila system in general, but it appears in particulars as well. The San Pedro confluent drains an area within a curve of high rainfall, the upper Gila itself has its feeders upon slopes similarly well watered, the Salt River derives its supply from another portion of the same area, and the Verde, the Agua Fria, and the Hassayampa all penetrate one and the same area of markedly high precipitation.

It has been noted that the isohyetal curve of 10 inches draws in water the division between the plain and its loftier neighbors. The curve of 15 inches in the present condition of the available data can be drawn only in the southeastern expansion of the proplateau where it waters the region drained by the Santa Cruz and San Pedro rivers. The curve of 20 inches appears in four branches. The first includes a small district in the southeastern expansion of the proplateau to the southeast of Tucson and is definitely superimposed upon the Santa Rita Mountains. The second appears as to a certain extent coterminous with the elevated mass of the Natanes Mountain group, and thence has a narrow southeasterly projection between the valleys of the upper Gila and Salt rivers, toward Phœnix and Florence. The third very closely traces the flanks of the Mogollon ranges and includes the San Francisco mountains which are adjacent by but a small interval. The fourth is narrowly confined to the region of the headwaters of the Hassayampa, the Agua Fria, and the Rio Verde in the highlands of the vicinity of Prescott, which although in altitude a component part of the plateau yet appear and apparently exercise the hyetal influence of a mass extrusive to the proplateau. Of these three latter systems of curves of 20 inches each one employs as a large portion of its exterior boundary the line which divides the two watersheds, and only a narrow minimum of its influence can be shown to be exerted on that side the divide which makes the drainage basin of the Colorado.

The characteristic and marking curve of the southern portion of the plateau, or that portion which forms the watershed of the Gila, is the isohyetal curve of 20 inches. Isohyetals of 10 inches appear sporadically (at least in the present state of knowledge a systematic correlation does not appear) in three instances in the Gila watershed, while just beyond the divide an extensive curve of 10 inches in Apache County shows plainly the drier character of that moiety of the plateau. The Gila system shows a curve of 10 inches in Cochise County corresponding with the Sulphur Spring Valley. Another is in the shape of a long loop of a New Mexican system extending far up the San Simon Valley in Graham County. The third is a circle of short radius drawn about Willow Grove in the western part of Yavapai County. In but one instance is there drawn a curve higher than the normal, and that is the line of 25 inches, which narrowly accords with the roots of the San Francisco mountains.

Rainy seasons.—A very favorable provision is found in the fact that Arizona has two plainly marked rainy seasons, a fact which largely balances the relatively small precipitation. In this, as in every particular of the study of precipitation in the Territory, it should be noted that the physical features are such as to lead all rain precipitation down steep mountain sides, everywhere approximating perpendicularity, with such rapidity that the surface which receives the rain is little benefited thereby, and the valleys are almost instantly affected.

The season of winter rains begins in December with a marked absence of precision in definition, but at the other end in February their termination may be predicted within narrow limits. The precipitation during this season is neither so great nor so much to be relied upon as the rains of summer, yet it serves a regulating purpose whose direct influence upon the climate and the more particularly hydraulic features now under discussion is persistent for months after the definite conclusion of the season which produced it. The precipitation of this season is both heavy and general while it lasts. The season presents a series of weather types which have been the subject of some study in connection with their annual and secular appearance upon the Pacific coast. In brief, the storms are of the sort conventionally known as cyclonic or low barometric areas between which are interpolated anticyclonic areas marked by extreme cloudlessness and slight humidity. As in the case of the seasonal rains of California, so in Arizona, the variability of the winter rains in amount and frequency is in the ratio of the intensity and recurrence of barometric disturbances. To this characteristic feature is due the intermittent effect of the rainfall, which gives the streams both high and low water during the rainy season. To such an extent is this tendency carried that in time of drought some of the streams become mere rills, and even disappear altogether either because of total failure of the source of supply or because the water has sought underground channels beneath the great deposits of detritus, sand, and silt that have washed into the beds of the streams on account of the rapidity of passage of rain water to a distinctly lower level over mountain sides of notably steep pitch.

Despite the fact that the amount of rain precipitated during the three winter months is measurably less than in summer it never fails to flood the streams. The reason for this has already been indicated in the sharpness of the contours of altitude. The low temperature which prevails upon the plateau during this season also tends to magnify this result. The soil of the mountains, naturally little pervious, is made still more impermeable by the freezing of rains upon it so that succeeding rains fall upon glare ice and are hurried to the valleys with a minimum of absorption by the soil. Much of the precipitation of the winter rainy season occurs in the form of snow which is

retained upon the spot where it falls. Succeeding falls add to the depth of this mantle of stored water until it is by no means unusual to find it on the mountains all the way from 3 to 4 feet deep. It thus appears that the total winter precipitation is naturally resolved into two components of which one, the rain precipitation, has an immediate though evanescent effect upon the streams, while the other, the snow precipitation, exerts an influence more permanent in proportion as it is less immediate. This mantle of snow is in fact a great storage reservoir with neither dam nor dike, and automatic in its regulation of supply to the causes which avail to produce demand. It remains upon the plateaus of high altitude on which it has fallen for months after the definite conclusion of the rainy season and is frequently observed to persist until nearly the beginning of July. Its gradual melting serves to keep a quantum of water in all the streams throughout the dry season almost to the beginning of the summer rains.

The summer rains come in July, August, and September, being somewhat sharply defined from the preceding dry season, but shading off so indeterminately toward the beginning of the winter rains that it becomes quite proper to say that while Arizona has two rainy seasons it has but one dry season. Although there is no positive delimitation of time between the rains of summer and those of winter there is to be noted a differentiation of character. The rains of winter are caused by the proximity of approach of great storms in low-pressure areas which form a part of the storm system of the country at large. The rains of summer are local in character and directly traceable to mountain influences, with a distinguishing peculiarity which should be noted for future study. In general the amount of rainfall is greatest in districts toward the point from which the prevailing wind blows; in Arizona the greatest pluvial effort is registered on the leeward side of ranges. A noteworthy feature of the climatology of the Territory is that when the last snow disappears upon the mountain summits the summer rains commence. So constant and so well appreciated is this relation that the oldest settlers, and the Indians before them, have been in the habit of calculating the coming of the rains in accordance therewith.

It has been noted that the summer rains are of local character; they appear somewhat upon the plain, but their maximum amount and intensity is displayed upon the plateau. While their total amount is considerably in excess of the sum of the winter rains the amount of any individual precipitation is uniformly less than any one precipitation of winter, and the excess is made to appear through the sum of a long series of precipitations which are of almost daily occurrence upon the mountain summits. They rarely have any great extent, but their intensity is so remarkable a feature as to warrant particular consideration.

So much rain has on occasion been known to fall in a single precipitation that the term cloudburst becomes by no means inappropriate. It is a topic of the hyetophysics of the Territory on which the hydraulic engineer will demand from the meteorological service the fullest information. The records do not show many of these cloudbursts, but of the few concerning which accurate data have been secured several are to be noted as severe. Thus records at Forts Bowie and Verde, at Maricopa, Phœnix, and Yuma which have been kept for varying periods up to 13 years show not a single instance of a rainfall to be classed as violently excessive. In the class of rainfalls noted as precipitating 2½ inches or more a day the entries are few. Thus at Fort Apache 10 years' observation includes two such cases; Fort Grant in 10 years shows three cases; Fort McDowell once in the 5 years of observation, and Prescott twice in 12 years make similar records. In the much more dangerous class of rainfalls noted as precipitating an inch or more an hour Fort Apache is credited with 9 in 10 years; Fort Grant with 6 in the like term, and Fort Thomas 1 in 8 years. These are the facts of record; their discussion would involve a minute examination of local physiographic features not pertinent to the present inquiry.

In each case they can properly be considered only as an exaggeration of the normal mountain influence which directs these rains of summer, whether moderate or severe. The fact that showers are observed almost every afternoon upon the mountain summits, and most uniformly only in the afternoon, points directly to this cause, which may be briefly discussed. A well-established law of atmospheric temperature is that it decreases with the elevation, a law whose operation is easily seen upon snow-clad mountains where the snow line gradually rises with the increasing heat of summer. While Arizona has no mountains capped with snow the year around, it has many which carry snow for varying periods into the summer. During the persistence of the snow the actual decrease in temperature on the mountain sides is nearly equal to the theoretical decrease with elevation. The white snow surface by its reflection of incident solar heat tends to keep the mountain mass at a low temperature, and possibly such a surface absorbs no more heat than air of the same elevation; at best its coefficient of absorption is small. Thence it results that above the line of actually persistent snow the vertical isotherms may be conceived to differ but slightly over the plateau and over the extrusive summits. With the final obliteration of the snow a marked change occurs. The rock surface now exposed absorbs heat and speedily converts the mountain into a radiant body of conical form. The strata of air cut by this cone of radiation and strata lying above it become at once disturbed, convection is instituted, and as the influence spreads over a considerable area great amounts of air are in a short time lifted to a great height, and in the resulting operations of expansion, cooling, and condensation the upper currents distribute the rain over the plateau and particularly to leeward. By parity of demonstration the same principles may be shown to account for the diurnal periodicity of these summer rains.

From the foregoing considerations it appears that the rainfall of Arizona, computed on the basis of the present records whose inaccuracy is know to be subtractive, is more than sufficient to irrigate the reclaimable soil, great as its extent is known to be. The maximum rainfall of any of the years for which records have been kept is not so great as to burden the usual engineering appliances for handling it, and the possibility of cloudbursts simply necessitates the construction of stronger retaining works and the maintenance of emergency wasteweirs. The great question to be considered by the engineer in connection with each stream is its hydraulic potential, the maximum amount of water available at the close of the period of minimum supply. That this is sufficient for all his uses is clear from the observations of the meteorologists of which a summary sketch has been here presented.

Yet other matters must be considered as affecting the problem set before the meteorologist, and of these there are certainly two which must be held to be proper objects of meteorological study; these are, the evaporation from water surfaces and the mechanical equivalent of wind power.

Evaporation.—Concerning evaporation it is difficult and would be presumptuous to speak with any claim to accuracy in results, for the reason that the study of this phenomenon is yet so young that discussion of its primal data is vague and unsatisfactory. Several atmidometers are in use and the suite of observations recorded thereby is slowly increasing; but there is this initial difficulty in the study of those records, that it has been impracticable to establish the ratio of any atmidometric record to any case of evaporation from flowing or non-flowing bodies of water, which is what concerns those most interested. It should be said that in every case the atmidometer makes its record under conditions rigidly dissimilar to those occurring in nature, and for the present it is impossible to determine in what direction and to what extent the instrumental record differs from natural evaporation. These are points which have been presented in the Monthly Weather Review for September, 1888 (p. 235), in a paper which marks the first definite step toward the study of evaporation as an essential climatographic datum.

In general it may be said that the amount of evaporation depends on the dryness of the air, the velocity of the wind, the temperature of the evaporating water, and the extent of the evaporating surface, and, other things being equal, varies inversely as the barometric pressure. It is possible also that the amount of evaporation may be reduced by the height of the banks of the reservoir, or, what amounts to the same thing, the lowering of the water level.

Instrumental records were carefully taken at a number of stations in this country between July, 1887, and July, 1888. Four of these stations were in Arizona, and the records of these posts are here presented as they appear in the Monthly Review. They serve to indicate what must be the evaporation from storage reservoirs, since even though they do not give the actual evaporation from every square inch of water surface (and this is uncertain, it is neither asserted nor denied) they yet supply a proportional scale for the comparison of reservoirs within the same or different atmidometric curves.

Station.	1888.						1887.						Year.
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Fort Apache	2.6	3.0	3.6	6.8	9.4	9.1	7.1	6.7	5.3	5.2	4.1	2.6	65.5
Fort Grant.......	5.2	4.8	6.4	9.2	10.2	13.8	12.4	10.5	9.0	7.9	7.2	4.6	101.2
Prescott	1.4	2.8	3.6	5.4	6.2	8.1	6.6	6.5	4.7	4.9	3.6	2.2	56.0
Yuma............	4.4	5.2	6.6	9.6	9.6	12.6	11.0	10.2	8.2	8.2	5.5	4.6	95.7

Drawing the curves in accordance with this record it will be seen that Arizona is entirely above the curve of 50 inches of annual evaporation; that very nearly half of the territory is above the curve of 90 inches, and that it contains an area of more than 100 inches, the maximum amount of evaporation in the United States. These atmidometric curves yield yet another striking example of the correlation of the physiographic features of the Territory, since the curve of 90 inches traces very closely the 10-inch isohyetal curve and the contour of 3,000 feet of altitude; in other words, the northwestern axis of the mountain system. From this it will be seen that the greatest amount of evaporation occurs in the plain, which is the region where irrigation is destined to be applied, and that curves of high evaporation include nearly all the projected reservoirs. Yet, on the other hand, it should be noted that the enormous amount of evaporation within the 100-inch curve will scarcely affect the economic features, because in the San Simon and Sulphur Springs Valleys, over which this curve is drawn with close restrictions, present indications point to irrigation by utilizing subterranean flow of waters which are below the reach of evaporating influences.

With the view of checking, or at least modifying, the amount of evaporation the following suggestion is offered to the consideration of those who may be inclined to experiment in the hope of the great saving of water which would be the result of success. One of the most common genera of aquatic plants is *Utricularia* or Bladderwort, which has more than a hundred species, in its habitat including the torrid and temperate zones, and in this country is represented by fourteen species. The characteristic growth of this plant would seem to indicate that it may have valuable properties in the line of acting as a screen against evaporation. Its germination and early growth are at the bottom of still bodies of water. Here it grows until it has reached a length of 3 or 4 inches, loosely attached to the soil by roots which are not designed for anchoring purposes. As the time for flowering approaches the root bladders, which give the plant its name, fill with air and float the plant to the surface where it forms a thick cloak of green with fine and closely matted leaves which screen the water to an extent which should warrant experiment to determine whether it does prevent evaporation sufficiently to make its planting advisable.

After the close of the flowering season, and when the seeds have nearly matured, the floating mass sinks to the bottom, where the cellular tissue decays and, instead of forming a deposit on the bottom, is for the most part dissolved in the water. The floating period of the Bladderwort in the Southern States is from May to September. If its behavior when transplanted to the reservoirs of Arizona underwent but little change it would screen the waters during all the period of maximum evaporation when some screen would be most desirable. Concerning the possibility that it might in some way interfere with the flow in ditches it should be noted that it demands still water for its growth and that in England outlets of ponds completely covered with this growth are kept perfectly free by a current of less than 2

furlongs an hour. This is made as a suggestion that those interested may, if they see fit, attempt the experiment on a small scale and thus learn what difference, if any, will be made by the transplantation to the changed conditions of Arizona.

Wind power.—Enormous power goes to waste all over the land in the wind which blows and is not utilized. The question is one which has engaged the attention of mechanicians who recognize the power latent and find their difficulty not in rendering it immediately efficient but in conserving its energy. For irrigation purposes in Arizona this difficulty needs no consideration; it is sufficient to raise water into a tank or reservoir whence it may be drawn as needed. The wind may not be constant, but its direction is immaterial and the force which will operate a modern wind motor is very small. Such application of power is very clearly indicated for the fertile valleys of the southeastern corner of the Territory where abundant streams underlie the soil and may be reached by wells not more than 20 feet deep.

IRRIGATION.

The rocks and the raindrops are the parents of the agriculture of Arizona. Mutually acting and reacting at every stage they have been at work for ages to lay upon the plain and in the eddy basins of all the rivers rich deposits of soil. Their work is by no means concluded and of the geological past: the part of man is simply to assist nature on the lines she has plainly indicated in her own operations. Agricultural Arizona betrays no evidence of disruptive violence: the jagged mountain peaks and the deeply scored valleys are in the uplands: their waste and detritus have been spread in smooth sheets and gentle slopes upon the river bottoms and the even plains. The highly landed lands of irrigated districts in other States are interrupted with troublesome frequency by hillocks which rise above the irrigable level; in the Gila and Salt River Valleys scarcely an obstacle stands in the way of the even flow of the waters.

Rich as is the Arizona soil it is always a disappointment to the farmer who views it with the prejudices born of familiarity with the deep rich loam of the prairies. At first sight he can compare it with nothing but the sand of the sea beach; that it could be made to bear a scanty crop of some hardy grass is almost beyond his comprehension; that it does bear enormous harvests of grain, that it is the rival of every vineyard country in the world, that its orchards are beyond rivalry, are facts which have to conquer belief in his unwilling mind.

This is a land of inland seas in recent geologic times. Their beaches and shoals have been laid down at several altitudes to serve as foundation for later effects of soil-making industry. To stratifying action has succeeded the mechanics of the present geologic period, which is frictional, erosive with the erosion of wind and water. The science of common things, which often goes direct to the heart of the most complex matters, has seen this fact and shows it in the names of the rivers; the Colorado, red with the suspended soil which it carries along, the Rio Puerco, dirty as the water which drains from the mire of a hog-wallow, the Salt River and Mineral Creek, proving to another sense that they carry the elements of soil.

Throughout the plateau everything is adapted to secure the maximum erosion. The raindrop falls on mountain slopes approximating the vertical and acquires such a velocity along the steep slope that it scours away some of the soil; coalescing drops become rills to score each its little gully on the rocky steep, and rills unite to form creeks dashing along with force to roll large rocks down their beds and grain by grain wear them away, and every such grain is borne far along to do some good; creeks at last grow into rivers whose velocity is great and which have a coefficient of erosion to correspond. The Gila flows down through the mountains with a fall of 4,000 feet in 500 miles; when it reaches the plain it falls but 6 inches to the mile of flow; its suspended material is deposited along this portion of its course.

The Colorado wears away its mountain bed with a fall to the mile ranging as high as 38 feet and 10 feet not uncommon, yet from the point where it begins to border the plain its flow is reduced to the uniform descent of a foot and a half to the mile. Its cañon is 400 miles long and often 20 miles in width and so deep that in places stand cliffs a mile high. This gorge, whose contents if stated by number of cubic yards would be one of those enormous numbers which the mind in vain tries to grasp, has been cut away by water, every grain that once was solid rock has been carried by water to a resting place in Arizona or in the Gulf of California below. Beside the erosion of its own grand cañon the Colorado has served as the conduit for the detritus of a great mountain region brought to similar disintegration by a host of confluent streams.

It is thus that the soil has been gathered by the waters, that it has been translated from the high altitudes to the lower, and by the water it has been deposited in a surface which is both level and uniform. The worth of such a soil is a matter dependent on the characteristics of mountain districts hundreds of miles away, and in this case no fault can be found, for the mountains are rich in soil constituents and the richness of this wealth is brought to the plain in the most finely subdivided form and thus is in the best shape for the purposes of agriculture. This soil consists generally of red clay and decomposed granite with gneissic admixtures, the whole diluted with sand, which keeps the mass ever friable, and with a sufficient proportion of true humus which will be subject to an almost constant increment under tilth.

The cellular structure preserved throughout the deposit by reason of the irregularly crystalline sand has a tendency to maintain a system of capillary tubes which are inert so long as the soil is dry but which perform a most important part when moisture is applied. As the water penetrates the mass of dry soil the capillary system becomes charged and at once begins its operation of leading toward the region of root-penetration the important chemical components of vegetable tissue stored below. The water which induces this restorative action is at the same time acting primarily upon the surface by direct molecular addition of soil. This action which goes on to a certain extent under natural conditions will proceed to a certainly greater extent under irrigation systems which are expressly designed to pass the water over the soil with a minimum velocity of flow and thus provide the most favorable conditions for dejection of the matter held in suspension.

The amount of this soil which it is known needs but the water of irrigation to become fruitful is of an extent not accurately known and has been variously estimated at from six to ten million acres, an area of uniform fertility surpassing the combined areas of Massachusetts, Connecticut, and Rhode Island. A recent governor of Arizona in his report for 1888 speaks in a general way of 25,000,000 acres to be reclaimed. With more precision the United States Land Office certifies to 2,000,000 acres of arable land in the valleys of the Colorado, the Gila, and the Salt. The governor in his report for 1887 makes the estimate that in the stretch of desert land from Yuma to the mountain ranges of Pima County, a distance of 250 miles in length by 125 in width, there is contained about 15,000,000 acres, and that to reclaim this now desert waste and make it yield an abundance of valuable crops there is only needed an artificial application of water. These, however, are questions for the geographer, not for the meteorologist.

In general it may be said that the question of the reclamation of any arid land presents itself for discussion under five topics which it is well to note. They are: (1) Geography and hyetophysics of the region; (2) amount of land which may be irrigated; (3) amount of water which may be used for irrigation; (4) economy of irrigation; (5) legal questions involved. The lines of division between these topics can not be sharply drawn, each involves consideration from several points of view and thus comes within the province of several studies. The economical and legal questions are to be settled by the intending investor and his advisers; the amount of land and the amount of water available for use upon it are to be determined by engineers; the meteorological student may in pursuit of his researches find himself involved in the discussion of any or all of these topics, but his special province is the hyetophysics as affected by the determining facts of nature. It is hoped that this account will show the Signal Service to have made the best use of its opportunities and to have fairly presented the case for the consideration of engineers.

The aridity of the territory, great as it appears on first sight, does not prove a bar to high agricultural development in the line of close farming of chosen spots nor has it in the past so far as history runs back. Nor indeed does the twilight of history obscure the fact of irrigation that existed beyond the memory of the most ancient tradition. In the valley of the Rio Santa Cruz, near Tucson, there may be still met with the ruins of ancient aqueducts of stone so old that the Indians of this day know nothing of their builders. Whoever these ancient farmers may have been they have left no trace of their history beyond the masonry of their conduits and incised thereon a mass of inscriptions which no amount of linguistic science has yet availed to decipher. To the Aztecs the Colorado was as the Nile to the civilization which came to life earliest of all history and spread its light to Europe. It fed the land with both soil and with water, its yearly rise was the only season, about it grouped all the concerns of the people. The ruins of the Colorado Valley and those of the Gila Valley whose masonry shows their Aztec origin are a mute testimony to the success which would attend the repetition of these operations of an uncivilized race.

At Mesa City, in the Salt River Valley, the Mormons of the prosperous stake there established owe their prosperity to their aqueduct system and this in turn they owe in large part to the labors of a former race of whom all knowledge has vanished. These early peoples were farmers and appropriators of water through extensive ditch systems, and when they disappeared in some convulsion of savage life they left their ditches behind as everlasting memorials. In time the drifting sand filled the aqueducts and they lay hid until the Mormons needing water found them so well preserved as scarcely to need more repairs than the mere clearing out of the sand. Near Florence, in the region containing the Casa Grande which are the most significant ruins in the country, are found old irrigating ditches choked in places by streams of lava. Excavations made through these rocky barriers have disclosed the old cement bed of the aqueducts intact below. This will give some idea of the antiquity of irrigation in the territory.

The recent Indians when discovered by the Spanish conquerors lived by farming and then as now their farming was made possible by the artificial storage and carriage of water. Their period may be said to begin with the time when the present ruins along the valley of the Rio Verde were efficient channels watering rich lands, and has been continued to the present day.

What uncivilized Aztecs and barbarian Indians were wise enough to do white settlers have been shrewd enough to improve upon. Recent as is the agricultural settlement of Arizona, owing to Indian wars now ceased, the Territory can yet present a good list of irrigation systems in successful and valuable operation. More than 400 miles of canals bring water to considerably more than 500,000 acres of agricultural land which is now under tilth in addition to 100,000 acres so favorably situated as to be quite independent of artificial water supply. This irrigable land is distributed over the several counties as shown in the following tabular statement which has been prepared by Mr. T. E. Farish of Phœnix, the Territorial Commissioner of Emigration.

	Acres.
Apache County	6,900
Yavapai County	40,360
Gila County	7,600
Pinal County	71,600
Graham County	47,000
Maricopa County	321,000
Yuma County	40,000
Pima County	7,500
Cochise County	23,500
Mohave County	1,000
Total	566,460

On a matter of such interesting moment particulars are not out of place, and it is on this account that these figures are examined with some detail.

Pima County. —This border county is one of the least explored in Arizona and, with the exception of scattered mines in the Quijotoa mountain district, settlement is restricted to a narrow north and south strip between the extreme eastern boundary and the Rio Santa Cruz. Yet notwithstanding the narrowness of this settled strip there are 7,500 acres under irrigation. In the immediate neighborhood of Tucson are thirty-six ditches which irrigate fully 3,000 acres in their 56 miles of extent. Some of these ditches have been in use since 1690 and three of the reservoirs date from the same year, namely El Cumoso, Missional, and Del Rey. Several ditches are now constructing, of which two are of considerable magnitude, one at Santa Cruz and the other near Tucson.

The extension of the irrigation system contemplates the addition of fully 2,000,000 acres to the agricultural resources of the county. This it is intended to effect principally by the construction of a dam or dams at a point 25 miles southeast of Tucson, which would bring at least 100,000 acres out of sandy idleness into rich fruition. A detailed survey has shown the confluent of the Rio Santa Cruz known as the Pantano Wash to be best and most economically available for irrigation supply by storing the freshets which come down the stream in both the summer and winter rainy seasons. The steady flow of water in this stream is so slight that it may be disregarded as an unimportant factor, reliance being placed entirely on the torrential flow of winter and summer to fill the storage basins. The first of the series of three dams recommended has been chosen at the point of meeting of the Cienega and Davidson's Cañons, some 23 miles southeast of Tucson. Here a dike of hard eruptive rock appears on the left bank, continues unbroken to the bed of the creek where it upholds the sands, and makes its surface reappearance on the right bank of the main channel. A second dike is found on the right bank of the river bed and there is reason to suppose that it joins the former. Even though the bed-rock be not continuous the dam would yet have two abutments and a central pier of solid rock. A dam constructed at this point would have a total length of 1,052 feet and a maximum height of 67.5 feet maintained for 200 feet of length while the remainder of the length would need only 35 feet of height. The plan calls for a secondary dam 150 feet long with an average height of 6 feet. These dams would back up the water in Cienega and Davidson's Canons in two rectangular sheets, 63.92 acres of an average depth of 26.50 feet in Davidson's Canon, 210 acres of an average depth of 26.47 feet in Cienega Cañon. The capacity of the reservoir would be 299,580,795 cubic feet. The objections to the plan are twofold: First, that no adequate provision can be made for the removal of sedimentary deposits which would tend to reduce the capacity of the reservoir and ditches; second, that the waters would cover the track of the Southern Pacific railroad for three-quarters of a mile.

The second site recommended for a dam is 5 miles south of this point at a narrow part of the cañon where the total length of the structure need be but 418 feet, the maximum height 43.43 feet, and the average height 40 feet. This would cover an area of 67.12 acres to an average depth of 22.37 feet with 65,391,298 cubic feet of water. This amount is so small that the reservoir would have slight value for irrigation directly. As a subsidiary work to the third collecting basin it is well nigh indispensable.

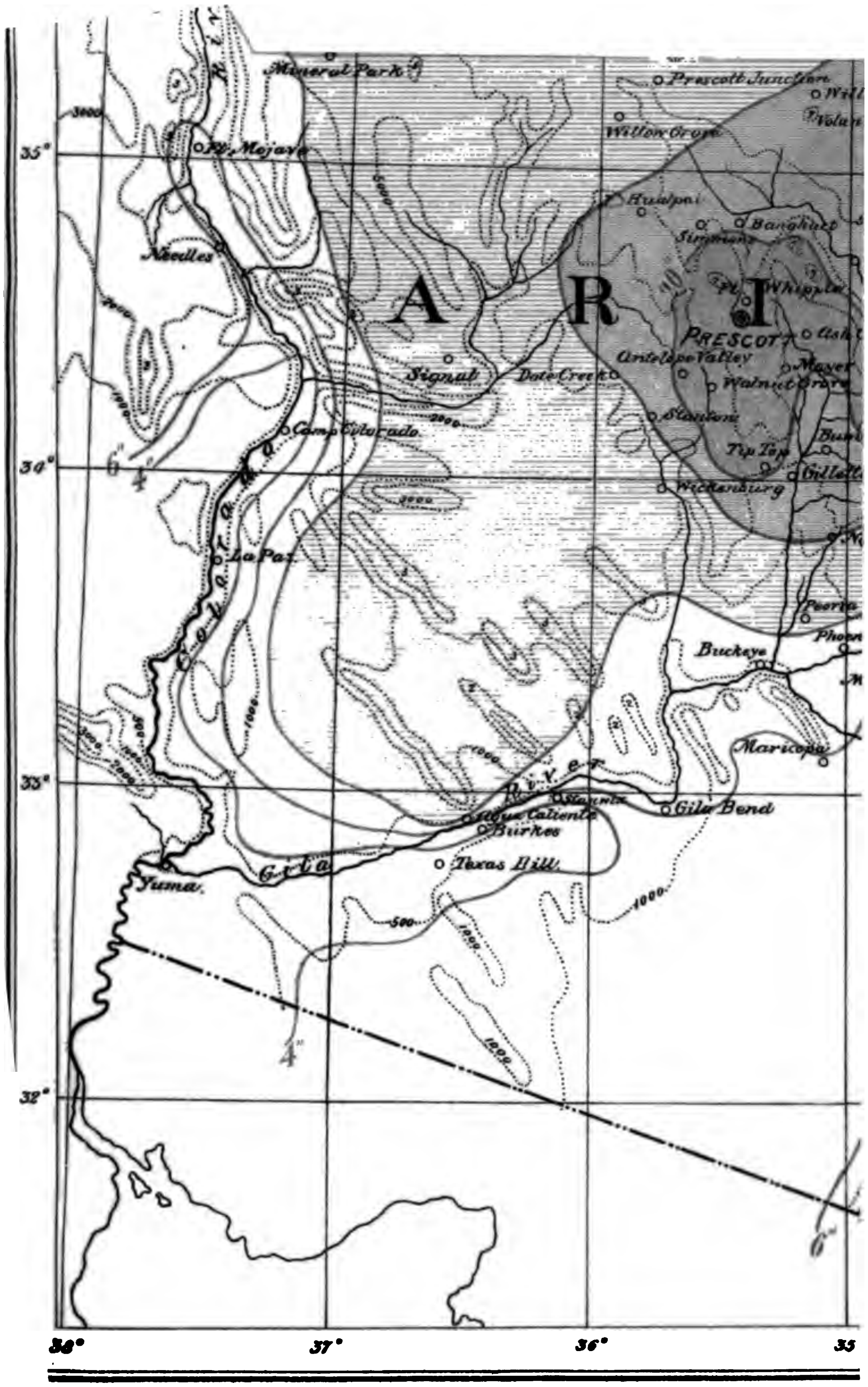
The third dam is indicated for a point 2 miles further down stream and 7 miles below the junction of the Cienega and Davidson's Cañons. A dam built at this point would require a length of 2,640 feet, exactly half a mile, its maximum height would be 73.95 feet and for 2,000 feet of its length it would average 70 feet. The contents of the basin thus created would be 752,169,381.8 cubic feet of water spread over 514.23 acres to an average depth of 33.53 feet. Such an amount of water, if subject to no replenishment, could not be discharged in less than a year through a ditch 12 feet wide by 4 deep and with a velocity of 29.42 feet the minute. The second dam is rendered necessary by the torrential violence of the stream at its semi-annual freshet and would serve to reduce its force of impact against which it would be scarcely possible to structurally strengthen the long dam. The upper reservoir would also subserve the useful purpose of a settling basin for the lower reservoir. It is calculated that the permanent flow of the Pantano would supply one-half of the amount lost by evaporation from the surface of the reservoir.

Cochise County. —In the report of the Emigration Commissioner this southeastern corner of the territory is credited with having 23,500 acres cultivated in dependence on irrigation ditches. The aqueduct systems are not large but make up the average by numbers. In an interesting report on the post gardens at Camp Huachuca, Maj. Julius H. Patzki, U. S. Army, surgeon of the post, notes that with the single exception of potatoes a good supply of vegetables is grown under a very moderate degree of irrigation in the four months April to July. These gardens are in Tanner's Canon, 7 miles east of the post. This exception of potatoes deserves a particular mention to stimulate further inquiry or to lead to the institution of further experiments, because the head of this cañon has been widely heralded as the first and almost the only spot on the American continent where have been found specimens of this plant growing in a free and wild state, although it is known to be indigenous to this hemisphere. This interesting discovery which had been known to botanists for years was made in 1882 by J. G. Lemmon, a vendor of herbarium supplies.

Prof. Edward Lee Greene, of the University of California, and the leading authority on the botany of the Pacific Coast, thus writes to the point:

"Two species of *Solanum* potato bearing tubers are common throughout southern Arizona and New Mexico. One (*S. jamesii*) belongs to the plains, the other (*S. fendleri*) to the mountains. The mountain species is the one which to me, in the days when I was familiar with both, looked most like our cultivated *S. tuberosum*. Both are nearly related to it, yet doubtless both are specifically distinct. Their tubers, though very small, are used by the Indians as food. Just which one of the austral wild tuber-bearing solanums is the parent of our cultivated varieties is a question which has puzzled our best students of plant history and distribution for years past."

In Ramsay's Cañon near by the water supply is somewhat too precarious for gardening. At the mouth of Ash Cañon an attempt at irrigation from a well is made. On a few ranches west of the post, and extensively in the valleys of the Rio San Pedro and Babacomori Creek, crops of fruit, vegetables, grain, and hay are produced, all under irrigation, for which the water supply is ample. In the San Simon Valley the total ditch system amounts to but 2 miles,



Mineral Park
Prescott Junction
Willow Grove
Ft. Mojave
Needles
Hualpai
Banghart
Simmons
Ft. Whipple
A R I
PRESCOTT
Signal
Date Creek
Antelope Valley
Walnut Grove
Camp Colorado
Stanton
Tip Top
Wickenburg
La Paz
Colorado
Buckeye
Peoria
Maricopa
River
Agua Caliente
Burkes
Gila Bend
Gila
Yuma
Texas Hill
35°
34°
33°
32°
38°
37°
36°
35

back the water about 20 miles with an average depth of 75 feet for the whole distance. Immediately above the Buttes the cañon of the river broadens, and at a distance of one-quarter of a mile it is as much as half a mile wide on the bottom, and for much of the entire distance it is a mile or more wide. The sides of the mountains surrounding this basin are broken by lateral cañons that add greatly to the contents. There can be no doubt of the water supply being sufficient to fill this reservoir, vast as it is, for a glance at the chart of isohyetal curves will at once show its dependence on areas of large precipitation.

Graham County.—As before, Mr. Farish is authority for the statement that 47,000 acres in this county are cultivated by means of irrigation. In the absence of more definite information it is believed that such ditch systems as exist are small and depend on water drawn by gravity from the ordinary flow of the Gila and on minor sources of supply. Acting Assistant Surgeon William Johnson at Fort Thomas in reporting on the post garden on the site of old Camp Goodwin, some 6 miles west of the fort, says that the supply of water is unlimited and is used just as needed and in such quantity as seems desirable. Mr. R. B. Tripp, of Eagle Pass, reports on the Pueblo Viejo Valley that there annually goes to waste down the flooded Gila water more than sufficient to supply the entire valley could it be stored. Concerning the same valley of Pueblo Viejo Mr. Edward D. Tuttle, of Safford, submits an able and interesting statement. The valley lying on both sides of the Gila contains 150,000 acres, of which 50,000 acres can be irrigated by ditches tapping the Gila and 10,000 more by storage reservoirs, the best results being promised by impounding the Gila. Irrigation is necessary more or less the whole year around; in general it must begin in February and continue until the middle of May for grain and into September for corn and fruit. Under the system now in use, which he characterizes as wasteful, 40 miner's inches are required for a quarter section in grain, but if the reservoir system prevailed 10 inches would be ample. Fruit land for the first and second years would require 40 inches and after that 20 inches would suffice. In general the black adobe soils require water twice as often as the loams.

Mr. Tuttle makes the following suggestions, which are worthy of attention as the views of a man practically acquainted with the situation:

"One general principle may be asserted. To run an irrigating ditch over a given territory a certain strength of stream must be maintained, varied by the fall and the absorbing capacity of the soil; the greater the fall and the less absorbent the soil the smaller the stream need be. If conducted to the point where the irrigation is to be applied in a pipe or cemented ditch, one-tenth of the present amount would suffice. The expense of this method will prevent its adoption in the cultivation of ordinary crops which do not yield much profit. However, should it be demonstrated that citrus fruits can be profitably grown here, irrigation projects of an expensive character can be carried out by private enterprise, as land will become very valuable, but I have yet to learn that a single orange tree has been set out here. If citrus fruits are to be grown at all it must be in the thermal belt on the mesas, and not on the colder bottom lands. Since the best fruit lands are those that are now above any water available for irrigation I have more faith in obtaining artesian water or pumping from wells than in irrigation under the reservoir system. If Government will appropriate enough to test the possibility of obtaining artesian water more good can be accomplished with a small sum than in any other way."

Judge J. T. Fitzgerald, of Solomonsville, has prepared the following accurate statement of the existing canals in Graham County, with the length of each and the acreage under ditch. The Gila River is the common source of supply.

Name.	Length.	Acres.	Name.	Length.	Acres.
	Miles.			*Miles.*	
Brown	3	1,200	Oregon	10	6,000
San José	6	1,000	Bryce	8	4,500
Mejia	4	600	Nevada	10	6,000
Gonzales	3	1,000	Curtis	6	3,600
Michelena	5	1,200	McMurren	6	1,400
Montezuma	6	3,600	Maxey	11	4,800
Union	15	10,000	Thompson	3	500
Darby	4	1,200	Loon	10	3,600
Senobia Gonzales	4	1,100	Ward and Courtney	6	1,600
Central	6	2,000			
Graham	8	2,700	Total		64,000
Smithville	15	8,000			

There are about 90,000 acres in the Gila Valley which could be brought under cultivation by proper extension of the above canals.

Gila County.—In this mountainous county the estimate is made that 7,600 acres are cultivated in dependence on irrigating ditches. In the eastern part of the county within the San Carlos reservation there is an extent of arable land variously conjectured to amount to 200,000 or 300,000 acres. On this irrigation is carried on to a small extent by the Indian Bureau, and affects perhaps 2,500 acres. In the western half of the county there may be about 12,000 acres of arable and irrigable land in patches and small strips in the narrow valleys of Salt River and Tonto Creek, with a contracted area on Pinal Creek north of Globe. The few and small existing ditches are used to apply water to 800 acres. The board of supervisors of the county formally represents that it is a mining and grazing country, without agricultural possibilities, and protests against the proposed creation of a storage reservoir on Salt River and Tonto

Creek on the ground that it will in no wise benefit Gila County, within which it will lie, but on the contrary will destroy almost all the agricultural land of that county and will obliterate the only feasible location of a north and south railway to Globe, whose route has already been surveyed and tracks laid for 40 miles.

Maricopa County.—This central division of the Territory has 321,000 acres dependent on irrigation already in operation and of this amount about half is under crop. Of a total acreage aggregating 5,986,500 it has been computed after careful survey that 3,000,000 acres can be reclaimed by a judicious system of impounding the drainage and storm waters. The existing irrigation systems depend on the Gila and the Salt Rivers, as appears in the following tabular statements.

Salt River system.

Name.	Length.	Name.	Length.
	Miles.		*Miles.*
Arizona	41	Utah	6
Grand	22	Farmers	5
Maricopa	14	Highland	22
Salt River Valley	18	Dutch Ditch	4
San Francisco	9	Monterey	4
Tempe	19	Griffin	3
Mesa	9		

Upon these channels depend some 250,000 acres, of which 187,500 have been reclaimed and 125,000 are annually cultivated.

Gila River system.

Name.	Length.	Acres.	Name.	Length.	Acres.
	Miles.			*Miles.*	
Buckeye	30	20,000	Goald & Bros	8	3,000
Gila River	8	5,000	Palmer	22	12,000
Enterprise	12	6,000	Citrus	14	5,000

Under construction are the Monarch Ditch, 8 miles long, serving 2,000 acres; the Gila River Irrigation Company, with 12 miles completed, beginning at Black Butte, below the mouth of the Hassayampa, where it is proposed to build a dam 1,755 feet long and 75 feet high, and through a canal 75 miles long to serve 500,000 acres on the left bank as far as the line of Yuma County; the Gila Bend Canal Company has completed 22½ miles of a canal, which is to have a total length of 30 miles and serve 18,000 acres, and a 50-mile canal is now being excavated which is intended to develop 80,000 acres.

The Chamber of Commerce of the capital city, after examination of the several sources of water supply, has definitely determined to recommend that site which, as has been noted, has been the subject of a protest on the part of the board of supervisors of Gila County. The site is on Salt River, at a point some 400 yards below the junction of Tonto Creek, where the river flows into a box cañon with sides perpendicular for the first 100 feet and sloping above at an angle of 45°, the bed of the stream being just 200 feet wide. A dam 200 feet high erected at this spot would back the water up Salt River for 16 miles to its cañon through the Sierra Ancha. For 2 miles back from the dam the lake would be half a mile wide and 180 feet deep; the next 2½ miles would show a width of 2 miles and a depth of 140 feet; the next mile would contract to a quarter of a mile in width, with a depth of 130 feet, and then would come a stretch of 10½ miles, having a width of 2 miles and an average depth of 70 feet. To this should be added the arm of the lake, which would be created in Tonto Creek for 10 miles, with an average width of 1½ miles and 80 feet depth, and smaller arms in Pinto Creek, the Sallamay, and others. This dam would impound in all 103,058,040,800 cubic feet of water, thus constituting it the largest reservoir in the United States.

Yavapai County.—In 1889 the farmers of Yavapai County tilled 10,000 of the 44,360 acres in their limits covered by canals and ditches. In addition to dam sites utilized at Date Creek and Bill Williams' Fork, which are intended to reclaim 50,000 acres, the only systematic irrigation attempted in the county was in connection with the dam of the storage company at Walnut Grove, on the headwaters of the Hassayampa, which was primarily designed for hydraulic mining. This reservoir covered an area of 527½ acres, and received the drainage of about 500 square miles of territory, mostly of a mountainous character, the greater part of which consisted of bare granite rock, allowing a quick flow of water, resulting from melting snow and rainfall, to the receiving reservoir. The dam which closed the head of the cañon was 110 feet high, 135 feet thick at base, 12 feet thick, and 420 feet long on the top. Fourteen miles below this was a small service dam, 220 feet long and 44.5 feet high. On February 22, 1890, a flood of unprecedented violence, after 3 days of extremely heavy rain, completely destroyed this system of dams and suddenly poured down the gorge the contents of the reservoir, which had a storage capacity of 4,410,000,000 gallons.

It was the intention of the company before meeting with the disaster of last February, which intention will be carried out on the reconstruction of the works, to build a bedrock service dam some 38 miles below the storage reservoir for the purpose of raising water into a canal of 10 or 12 miles in length, constructed to carry water stored above out on the mesa between the Hassayampa and Agua Fria, than which there is no finer piece of land in the Territory. The river bed would be used as a conduit to the head of the canal. The necessary sub or irrigating ditches would be constructed to properly distribute the water to ranches taken under the main canal. It was also their intention to construct other dams on the tributaries above, forming other reservoirs, in order that about 30,000 miner's inches of water could be drawn off daily and utilized for irrigation purposes during the irrigation season.

One hundred miner's inches of water will irrigate about 160 acres of land, much less being required after the same land is seeded to a permanent crop or set in different fruits. Thirty thousand miner's inches would irrigate in the neighborhood of 50,000 acres by proper care.

The flow of the Hassayampa during the storm, which resulted so disastrously for the Walnut Grove Water Storage Company, was, on close calculation, 7,000 cubic feet per second. There are about 7½ gallons to the cubic foot, and about 17,500 gallons in 24 hours make a miner's inch. A flow in the river of 7,000 cubic feet per second would give a fraction over 4,500,000,000 gallons in 24 hours.

Apache County.—The Commissioner of Emigration reports 6,900 acres under irrigating ditches and cultivation in practice upon all the land available. At Woodruff, on Silver Creek, the Mormons, who have there made a stake, have completed a reservoir which they operate with marked success, as is clearly proved by the thrift of the communities dependent on it. The distributing ditch is about 700 yards long before subdivision and supplies 3 miles of laterals which irrigate about 1,000 acres. The dam was washed away last spring and was not repaired in time to make the system available during this year. Two miles above St. John's there is a small reservoir which covers 50 acres 12 feet deep and supplies water for some 3,000 acres in the neighborhood of the town. A small reservoir at Coneto has been in use for 10 years to irrigate 250 acres. At Snowflake, on Silver Creek, another small reservoir covers 50 acres to an average depth of 4½ feet.

The board of supervisors in reporting on the possible development of irrigation in the county confined its detailed examination to the valley of the Colorado Chiquito, between Springerville and St. John's, and reports six sites available for storage reservoirs. The first is 25 miles above St. John's, and is fed by a living stream, which would cover 600 acres 12 feet deep by building a bank 300 feet long and 25 feet high. The second site is 22 miles above St. John's, on Coyote Wash, where a dam 435 feet long and 100 feet high would cover 2,000 acres with 12 feet of water. This system could be utilized upon 20,000 acres of good land near St. John's in addition to 1,500 acres within the Wash. The third site is on the Colorado Chiquito, 16 miles above St. John's, at a point where a 20-foot bank 900 feet long would cover 700 acres to a depth of 8 feet. The fourth site is at Salado Springs, where a dam 70 feet high and 600 feet long would impound sufficient water to irrigate 60,000 acres.

At Padre's Lake, a mile above St. John's, a storage basin, dependent on the spring thaws, could be constructed by an embankment only 10 feet high and 1,000 feet long, which would cover 100 acres 6 feet deep. The last of the series is recommended for the mouth of the Zuñi River, where a dam 80 feet high and 700 feet long would cover 7,000 acres to an average depth of 35 feet, an amount which would suffice to keep 125,000 acres well irrigated.

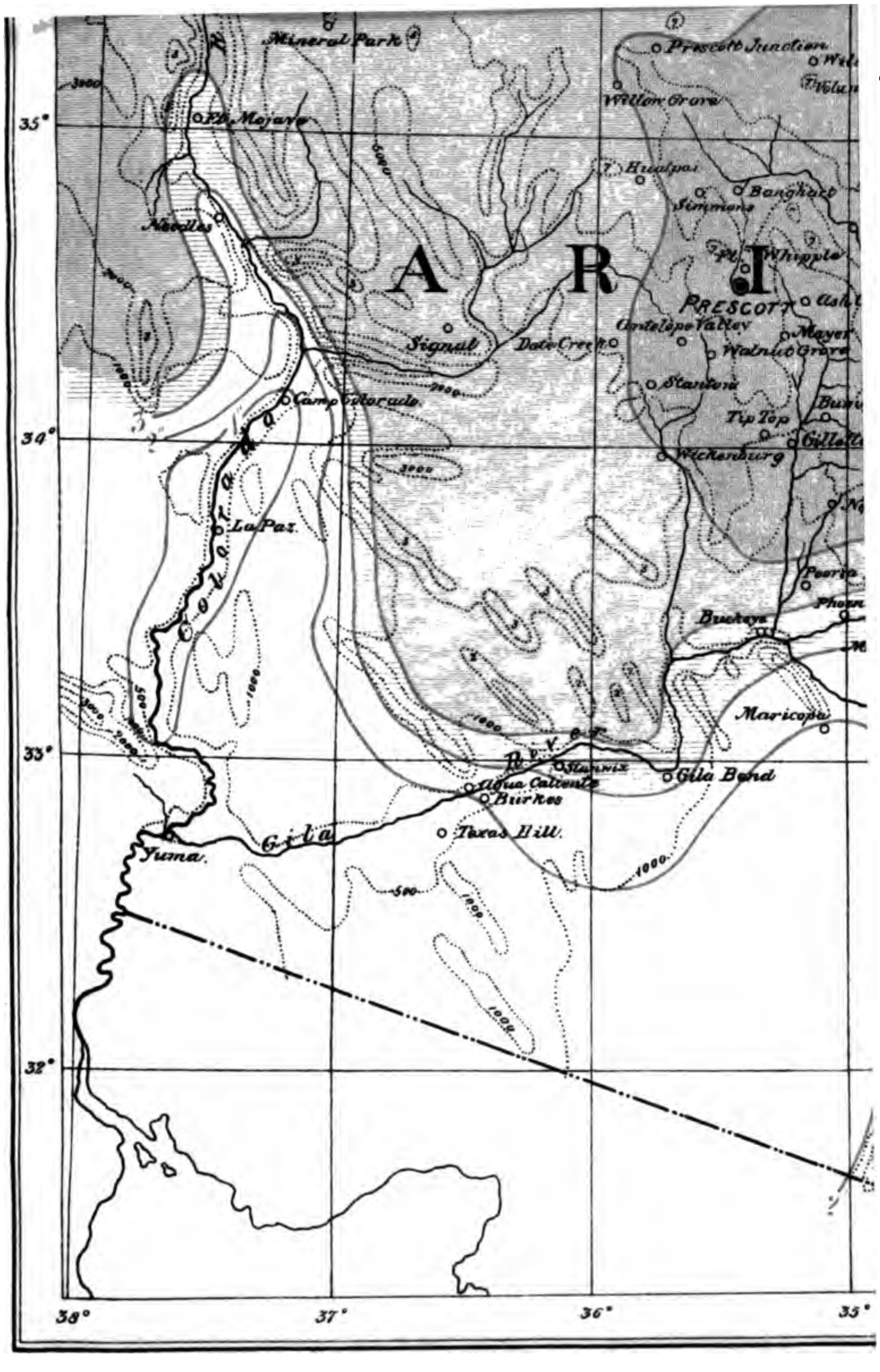
Mohave County.—There is little agricultural land in this county, and its uniform elevation above the Colorado militates to preclude irrigation except as applied to small pockets of loam in expansions of the cañon of the river. Mr. Farish credits it with 1,000 acres of irrigated land, all under cultivation.

This estimate is doubled by Mr. C. M. Funston of Kingman. His report is that irrigation is practiced in but one section of the county and there only in a crude way. The ditches are maintained solely by individual effort and cover probably 2,000 acres.

The reason for this state of affairs, in his opinion, is due to the fact that there are no public lands in the county; at least none have been surveyed by the Government and thus thrown open to selection. He estimates that there are 200,000 acres of irrigable land in the county, which will be rapidly taken up as soon as it comes upon the market.

Yuma County.—Of 40,000 acres under existing ditches this county is credited with having cropped but 6,000 acres during the season of 1889, but it must be kept in mind that irrigation in the Lower Gila Valley is yet in its infancy. Of the canals now operated only one is completed according to the designs of the engineer, and the remainder are put to so much use as is possible in their incomplete condition. They all draw their supply from the Gila and are restricted in their sphere of utility to the bottom lands of that valley. The following table will give interesting figures concerning the most important ditch systems now in operation in whole or in part. The plans of the projectors, it should be said, contemplate the extension of some of these canals to compass a total length of 241 miles and reclaim 267,000 acres:

Name.	Length.	Acres.	Name	Length.	Acres.
	Miles.			*Miles.*	
Mohawk	35	40,000	Contrera	7	2,000
Redondo	5	1,500	Saunders	10	4,000
Farmers	13	10,000	Araby	8½	2,000
South Gila	22	12,000	Antelope	7	2,500
Purdy	10	7,000	Toltec	3	....



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Appendix No. 66.

CLIMATE OF NEW MEXICO, WITH PARTICULAR REFERENCE TO THE RAINFALL AND TEMPERATURE AND THEIR INFLUENCE UPON THE IRRIGATION PROBLEMS OF THE TERRITORY.

SIGNAL OFFICE, WAR DEPARTMENT,
Washington City, December 5, 1890.

SIR: I have the honor to submit herewith the second of the series of memoirs upon the climate of S ates and Territories within the arid region which you ordered me to prepare, the memoir dealing with New Mexico, as detailed below.

In submitting this memoir I may be permitted to enter upon a brief comment upon the finished work. I may say that I have a general and particular acquaintance with the Territory, derived from extended travel on duty or for pleasure. From this quite intimate acquaintance with the general features of the Territory, I am justified in feeling able to utilize to good advantage the climatic records filed in this office.

The tables in the appendices exhibit the records of rainfall and temperature noted by intelligent observers at the several stations which have been maintained in New Mexico for longer or shorter periods. In some cases otherwise valuable records are briefly interrupted, and in such instances the continuity has been restored by interpolation of mean values, a justifiable approximation, without which it would have proved quite impossible to prosecute the climatic examination of many districts. Such interpolations, which have been conservatively made, are clearly indicated by brackets.

The systematic contours of altitude were traced upon the charts by Mr. Henry Gannett, who kindly drew upon the stores of unpublished data in the records of the U. S. Geological Survey.

In preparing the text of the report I have recognized that the peculiar connection of the Signal Service with the question of irrigation is limited in terms to the precipitation. It has been attempted to examine this subject systematically and to investigate the reasons of the phenomena as noted. Other climatic features have been held to be collateral to the main topic, and have been considered only to such an extent as is warranted by their influence upon the rainfall. This remark applies to the incidental investigations of the temperature, evaporation, and wind movement. The memoir is cautious by design. No statement has been made which is not definitely justified by the existing data; but at the same time it is well understood that, at some later period, the accumulation of data may become so much more representative of the entire Territory that the present work may be viewed with close criticism. In such an event it is trusted, with pardonable confidence, that while some of the statements made in the memoir may be found to need modification, the general results will receive confirmation.

While the discussion of the scientific meteorology of the region has been reserved for that memoir of the series which deals with California, it has been considered advisable to enter upon a tentative examination of the causes of the seasonal rains of summer in order that the constancy of the water supply based upon this precipitation may be recognized.

Very respectfully,

W. A. GLASSFORD,
Second Lieutenant, Signal Corps, Signal Officer and Assistant.

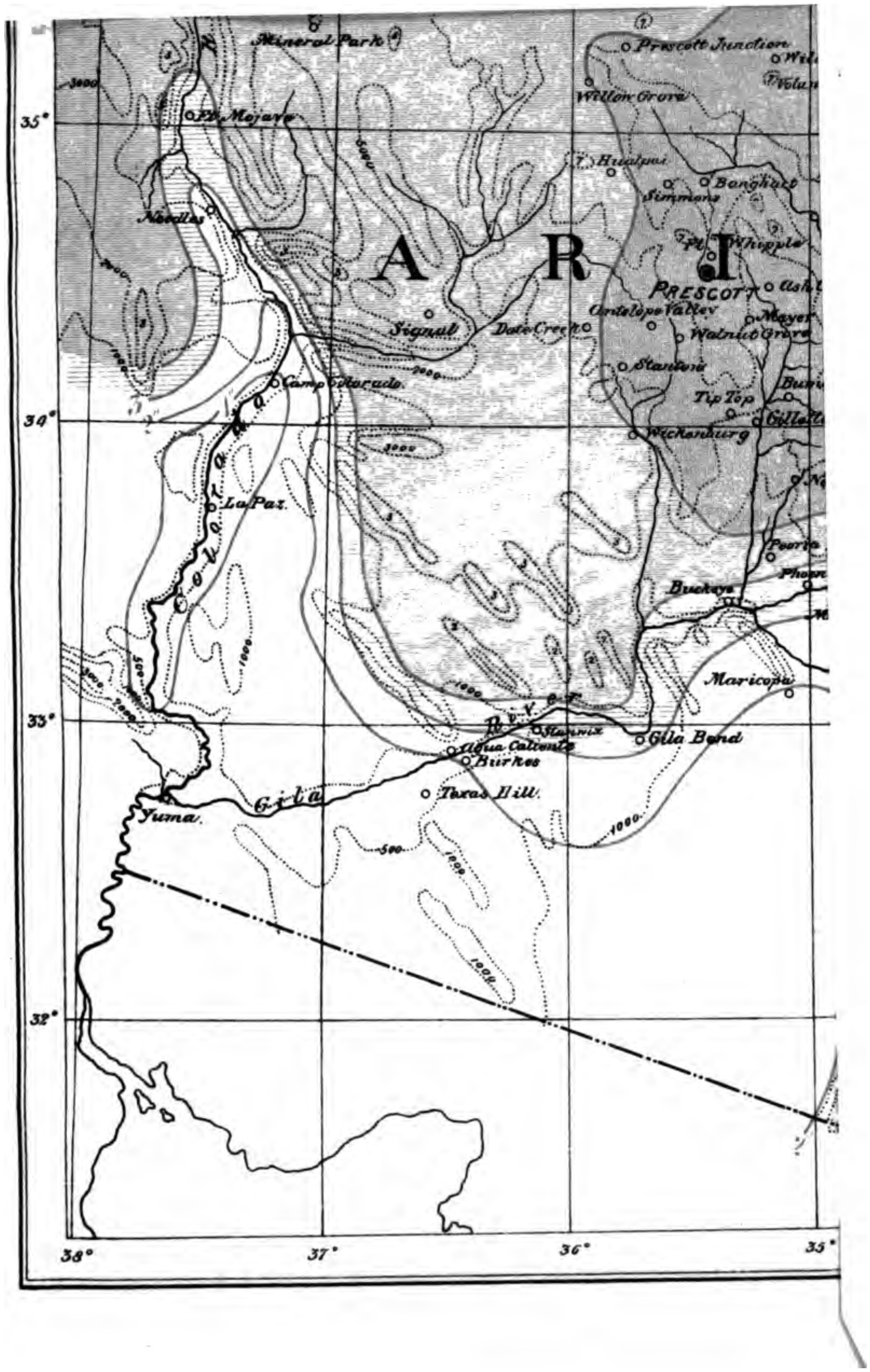
The CHIEF SIGNAL OFFICER.

NEW MEXICO.

INTRODUCTION.

As concerning one of the most promising political divisio ns of the southern border, a leading investigator of the many-sided problem of the irrigation of the arid lands and their consequent reclamation introduces his topic with the statement that New Mexico is just waking from slumber.

The remark is certainly justified by fact, yet it in no sense imputes to the citizens the blame of lack of foresight and enterprise. It is true that New Mexico has not developed its wonderful resources of soil and water in a manner commensurate with the activity of States and Territories which bound it on the eastern, the northern, and the western border. Yet there are many reasons for this. The causes are numerous which have contributed to retard development. They may be introduced to brief consideration and running commentary as Indian wars; the clashing of a civilization of progress with a torpid civilization, too little active, indeed, to be decadent; the impossibility of securing the application of vivifying capital to a land where titles were of the most uncertain.



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character, and with astonishing rapidity sinks to rolling hills and spreads out upon mesas of altitude still high but of even and gentle slope.

For the purposes of this examination the attention must be first directed beyond the political boundary line of New Mexico and over into Colorado, across the plain of the San Luis Valley, once filled by a lake, and up the mountains as far as Marshall's Pass. Here the main mass of elevation swings toward the southwest and directs the continental divide to enter New Mexico along the mountains whose eastern slopes feed the Rio Chama. Here, too, begins a steep and rugged chain swinging off to the southeast and entering the Territory east of the Rio Grande, whose headwaters are included between these parting ranges. This eastern branch best preserves the Rocky Mountain character, as the Sangre de Cristo, the Taos, and Santa Fé ranges, for about one-quarter of the north and south extent of the Territory. From a little below Santa Fé, however, it fines rapidly down to mesa and elevations distinguished as the Sierra Oscuro, the Sierra San Andreas, the Organ and Sacramento Mountains, which are featureless with the single exception of Sierra Blanca, which attains the average altitude of the range before the division and is boldly sculptured. The western branch in its earlier direction through the Territory serves to part the waters of the Rio Grande from the San Juan, but presents little of the appearance of a great mountain system bearing the continental divide until it reaches the ranges variously distinguished with the names of Datil, San Francisco, and Mogollon. South of the bed of the Gila this branch dwindles down to merely moderate heights, and thus, by the Peloncillo Mountains in the extreme southwest of the Territory, and by the Sierra San Luis in the adjoining State of Chihuahua, the system is continued into the Sierra Madre, by which name the continental back-bone is known throughout Mexico.

Viewed by the aid of its contours of altitude New Mexico appears as a plain of 5,000 feet, broken by but two systems of higher elevations and interrupted by lower elevations only on the eastern and southern faces. From this it will be seen that the mountain system opens to the south and east; the contours are parietal; from highest to lowest at every 1,000 feet of elevation they divide the territory into chambers of which each has different conditions and will demand separate attention.

Nearly three-fourths of the territory is included within the contour of 5,000 feet. Its limits may be made to appear more distinctly by subtraction than by positive statement. The plain of 4,000 feet appears at the headwaters of the Gila and, with slight exceptions, spreads eastward with a north and south dimension of some 50 miles as far as the Rio Grande. It traces its limits up this valley to a point a short distance above Albuquerque, following closely the right bank of the river and extending on the eastern side for a width of some 20 or 25 miles. East of the Rio Grande a tongue of this plain protrudes from Texas northward upon the New Mexican plateau, extending in length one-third of the State and in width preserving with considerable distinctness the mean of 30 miles, being bounded on the east by the heights of the Sierra Blanca and on the west fenced off from the Rio Grande Valley by the mountains of San Andreas. Upon the eastern face of the Territory the 4,000-foot level of the Llano Estacado compasses the valley of the Pecos as far as Puerto de Luna, the valley of the Canadian as far as La Cinta and all the land between except that a considerable mesa of the characteristic plateau system makes its appearance in the angle between the two river basins. In the extreme northwest the valley of the Rio San Juan shows a fringe of arable soil upon this level.

Upon this skirting plateau of 4,000 feet there appear three depressions where the general level is lower by 1,000 feet, one a narrow strip reaching up the Rio Grande Valley as far as Fort Thorn, the second a similar strip along the Canadian River, extending a little above Fort Bascom, the third a broad expansion occupying the valley of the Pecos almost to Fort Sumner and including in its lower reaches from Roswell down a level plain of the altitude of 2,000 feet.

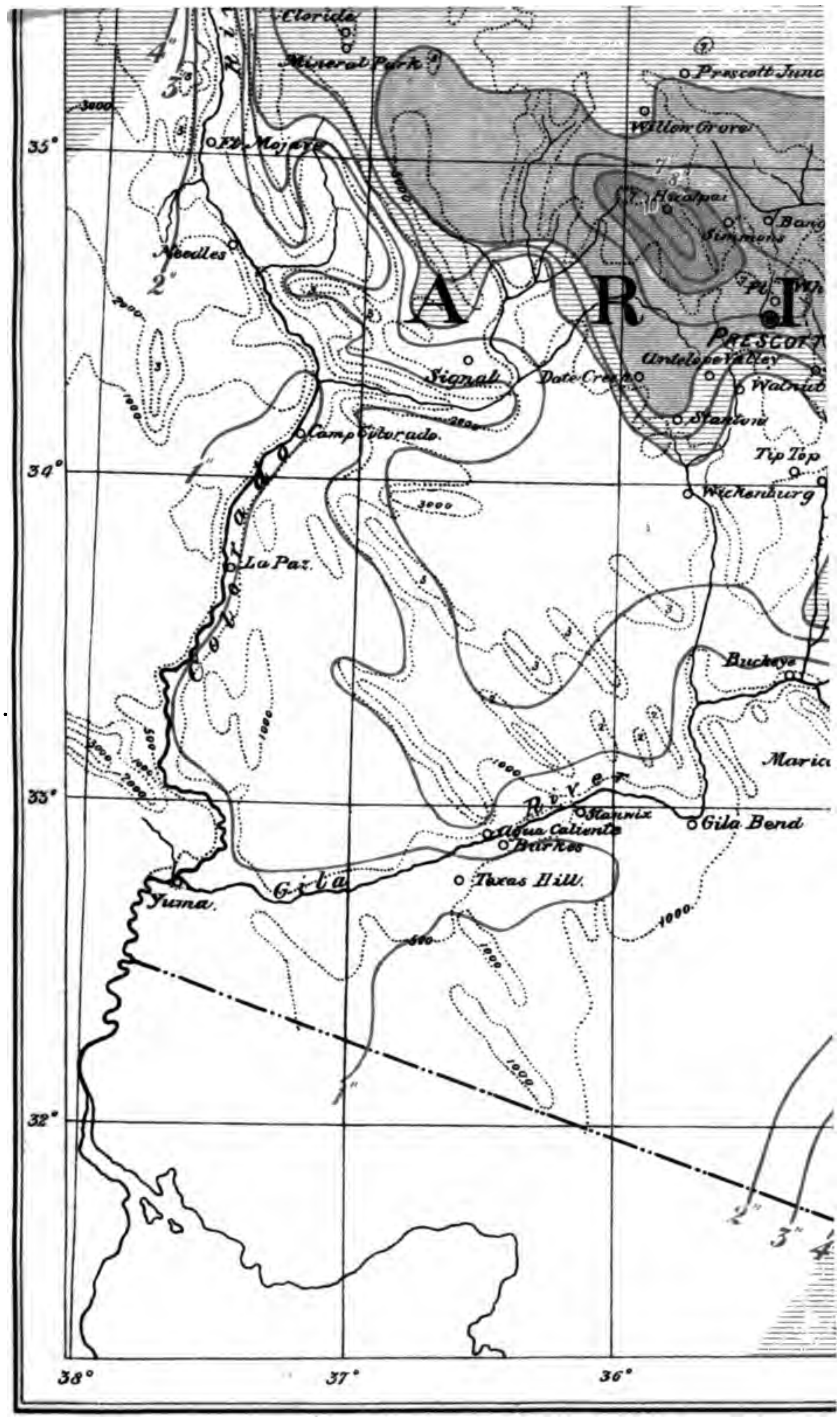
Upon the general plateau level of 5,000 feet are traced two systems of elevation of 7,000 feet and more, of which the names have been presented in the discussion of the mountain chains of the country. With the exception of the Sierra Blanca it is to be noted that these heights are grouped like a wall against the western boundary or form a dependent projection on the northern line, thus accentuating the southeastern facing of the system. From the ranges of 7,000 feet of altitude many summits rise to a height of 2,000 feet more, and peaks are numerous which go still higher to an altitude of ten, eleven, and a few even twelve thousand feet.

All that part of the Territory which lies above the 7,000-foot contour is rugged mountains of precipitous slope and deeply scored face. Their climatic purpose is to extract the rain from the atmosphere for the benefit of the lower levels; they do more than this, for the rain carries away the disintegrating rock to enrich the plateau and the valley beneath.

For the rest, the country is mesa of even surface despite its great elevation; it is a nearly level table-land, whose depressions and elevations are but slight, presenting to the lower plateau a characteristically bluff face. Such a surface, looking to leeward, can oppose but little resistance to the moisture-bearing wind as it passes over it; it must pass the wind and its freight along to condense upon the mountains. Arizona faces the prevailing humid wind and opposes to it a flight of steps; New Mexico is almost entirely on the leeward side of the mountain ranges and exposes a minimum of bluff surface to the wind. Hence arise different climatic conditions, and their study is so intermingled with the correlation of the mountain systems that it has been considered advisable to enter thus into detail.

It now remains to indicate the great divides which mark out the drainage basins of the Territory. They form the skeleton upon which the whole consideration of the subject must depend.

The most important is naturally the continental divide which stands as a barrier between tributaries of the Pacific and tributaries of the Atlantic. It enters the Territory along the line of the San Juan Mountains in Rio Arriba County, follows the line of the Cejita Blanca across the Chaca mesa to the Zuñi Mountains, thence across the Zuñi plateau and the plains of San Augustin, down the ridge of the Black Range and thence southerly into Mexico along the Sierra de las Animas. Within this watershed the Datil and San Francisco Ranges serve to divide the drainage



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of the Vaca Creek and the Sapello. North of this line the waters drain through the Canadian, the Cimarron, and the Arkansas into the Mississippi; south of the line the Pecos drains the rainfall across western Texas into the Rio Grande.

The Canadian basin is distinctively drained by the river of the same name. This rises near the northern boundary of the Territory on the eastern slope of the Culebra Range of the Rocky Mountains and flows in a southerly direction quite across the counties of Colfax and Mora, bending to the southeast after entering the county of San Miguel and maintaining that general direction until it receives the Rio de las Conchas, and thence flows east into Texas. It has a flow within the Territory of about 200 miles and receives most of its tributaries from the west, the principal in order down the right bank being the Vermejo and Cimarron, in Colfax County, the Mora, in the county of the same name, and the Rio de las Conchas, in San Miguel County. All of these drain the leeward slope of the Rocky Mountains. East of the upper course of the Canadian the Raton Mountains supply water for but one important tributary, Ute Creek, which, rising on their southern face, enters the Canadian in San Miguel County, not far from the Territorial boundary. In the extreme northeast are found the feeders of the Cimarron River and the Arkansas, which, in the extreme east of the Indian Territory, receives all these waters. The extensive system of irrigation which has been installed in this Canadian basin will be presented in a later title of this inquiry.

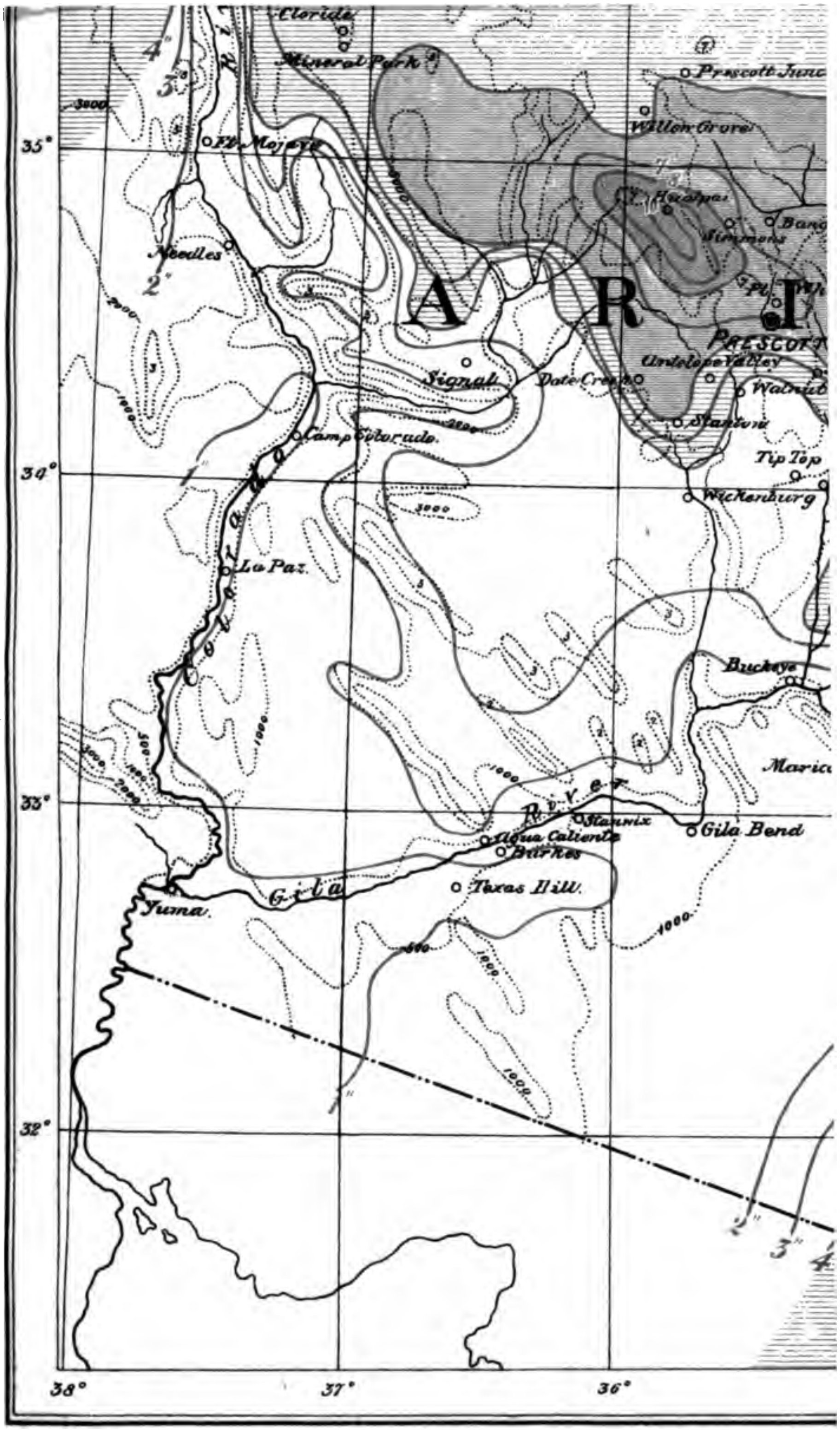
South of the divide is found the drainage basin of the Pecos, which is not only an important economic factor in New Mexico, but in Texas as well. The Pecos rises just below Jicarilla Peak, in the extreme northwest of San Miguel County, and flows through cañons of erosion and narrow valleys as far as its junction with the Gallinas. Near this point the river flows out upon the plateau of 4,000 feet and the valley gradually widens, and at Fort Sumner begins to spread out into the continuous and fertile level river-bottom, which extends with increasing width into Texas. In its upper or cañon course the Pecos receives confluents which rise in the mountains where the main river heads, and of these the principal are the Rio Gallinas and Vaca Creek, which enter on the left bank. Below Fort Sumner the river has no permanent tributaries on the left bank, and few, indeed, of any sort, but on the right bank it is fed by water from the eastern face of the divide, contributed through a multitude of streams, of which the longest are the Bajada de los Comondros, Rio Hondo, Cottonwood Creek, Rio Peñasco, and the Seven Rivers. In Chaves and Eddy Counties irrigation by gravity ditches, drawing a supply from the Pecos, is conducted on a scale of considerable magnitude.

The southwest corner of the territory is partitioned off as the drainage basin of the Gila, and contains not only the headwaters of the Gila itself, but of its tributary, the Rio San Francisco. The district is a small one of scarcely more than 50 miles in width along the southern half of the western boundary, and climatographically as well as economically its discussion properly belongs to the Arizona system. The same note should be made concerning the much less important basin of the Carrizo, the Zuñi, and the Rio Puerco north of the divide, which are integral parts of the drainage area of the Colorado Chiquito, which comes up for examination in that territorial portion of the inquiry. In the northern section of the drainage basin of the Gila is found the Rio San Francisco. This stream, which is permanent, heads upon the leeward or eastern face of the San Francisco range, and by its Tularosa confluent on the southern flank of the Datil range; thence in a narrow valley and with many small but permanent affluents draining the well-watered Tularosa and Mogollon ranges, it passes from the Territory to contribute its flow to the Gila, a few miles west of the boundary. The rains which the lofty ranges precipitate upon the plains of San Augustin and the Black range feed the countless streams which unite to form the Gila, and not only produce semi-annual freshets, but maintain a permanent flow of volume extremely valuable to the appropriator in Arizona. In this district the arable land, though extremely fertile, is limited in extent to patches along the bottoms of the narrow river beds. Irrigation is not practiced because the rainfall is sufficient in amount and frequency of recurrence to secure the growth of crops. This drainage basin is therefore removed from the discussion of irrigation as influenced by climate, but its bounding ranges remain as one of the most important and far reaching factors of the climatic problem of the territory, as will appear when that division of the subject is introduced.

The San Juan basin may be dismissed with slight mention as not contributory to the present investigation. In origin and in climatographic essentials it is a river of Colorado and is examined in the general discussion of that State. The only considerable affluent which it receives from New Mexico is the Rio Chusco. Its irrigation systems which cover many acres of excellent soil will be mentioned later in this memoir under the title of "Works in the county of San Juan."

By this process of elimination the Rio Grande is left for examination, lying in a narrow trench up and down the territory. It is necessary to see plainly from the outset that while the Rio Grande bisects New Mexico and thus is made to appear its most important stream, yet that the influences which are paramount in its hydraulic movement not only originate in Colorado, but are most actively exerted there, and that in New Mexico its drainage basin is most prominently delimited by the curves of least annual rainfall. The proof of these statements will be adduced in the more strictly climatographic division of the topic to which this is but preliminary; the fact is here noted to account for the necessity of going outside the territorial limits in the consideration of its greatest river, and also to remark that this fact will be found most competent and material in the settlement of several important economic and juridical problems which have already begun to present themselves in Texas as well as New Mexico.

The sources of the Rio Grande are to be sought on the Rocky Mountains in Colorado. Receiving a host of tributaries along its early course it winds through the valleys of the San Juan Mountains, which here carry the continental divide, and as a very considerable stream enters the flat plain of the San Luis Valley, where the alluvium dejected by the river gives but added fertility to the older alluvial deposits which remain as the sole trace of a great lake which within the present geologic period filled this bowl of the mountains. Here it receives the flow



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there broadly appears in the central valley of the Pecos, from the Juan Dios to the Rio Hondo and overrunning the slight divide into a portion of the Canadian, an indefinite area of 1-inch precipitation which extends from the Sierra Blanca and may be attributable to that mountain influence. Another 1-inch curve cuts off in the northwest corner of the Territory the drainage basin of the San Juan, including the basin of the Chama and the waters of the Jemez. This and kindred phenomena will receive further consideration in the discussion of the theory of the seasonal rains.

In January the precipitation at the three points above noted has conformed to the general average of the Territory, showing that the high precipitation of December was local and temporary. Meanwhile the area of 1 inch of fall has advanced northward over the western parts of the counties of Bernalillo, Valencia, and Socorro; in effect it is coterminous with the Colorado watershed and can not be traced across the continental divide. The higher precipitation continues with apparently close restriction to the lofty summits in Socorro County which part the Gila from the Colorado Chiquito.

In February the isohyetals, which in Arizona begin to give signs of breaking down into scattered local areas, have become markedly strong in New Mexico. The high summits of the Gila divide are closely marked with isohyetals of the same high figure. The curve of 1 inch generally rules west of the continental divide, and is unmistakably indicated as having crossed the summit and penetrated almost to the Rio Grande trough, though with slight intensity. Beyond the eastern wall of this trough a curve of 1 inch appears at Puerto de Luna and Las Vegas, in the Pecos basin, and is clearly due to local influence which is able to seize upon and magnify the faint and early forerunners of a climatic period which will scarcely make its general appearance for some weeks later

The March charts show the precipitation, which nowhere greatly exceeds an inch, confined to the Gila-Colorado divide in New Mexico and Arizona, and somewhat retracted from the Rio Grande. It is to be noted as an important preface to the *temporales* of the summer that a curve of an inch is plainly drawn about the summits of the Sierra Blanca on the eastern divide, extending northeastward almost to Fort Sumner and Puerto de Luna.

By April the winter rains have definitely ceased in both New Mexico and Arizona, except that the curve of 1 inch may be drawn interruptedly upon the highest summits of the divide between the Gila and Colorado. In the Atlantic watershed east of the eastern divide a peculiar area of considerable precipitation is noticed, and, in contrast with the general absence of precipitation which prevails over the rest of the Territory, is remarkable. The isohyetal of 1 inch follows the high summits of the Sangre de Cristo range until they sink to the plateau of 4,000 feet, thence trends southeasterly to include the headwaters of the Pecos as far as Gallinas Springs, thence sharply curving upon itself extends northward over the Raton range. The isohyetal of 2 inches is restrictively drawn on the upper waters of the Canadian from Springer northward. This also will receive consideration in the discussion of the theory of these rains.

In May the flow of the rivers tributary to the Gila and the Colorado Chiquito condition the provisional drawing of a 1-inch curve upon the Sierras Datil and Latil. East of the Rio Grande the 1-inch curve appears as a long loop from Colorado down over the Sierra Blanca. Within this a narrow 2-inch curve is drawn about Las Vegas.

Now by composition of these monthly elements it is possible to trace the general area of the winter rains to such an extent as they concern New Mexico. The greatest force of precipitation is plainly limited upon the summits of the continental divide and its western slopes; from collation of the system as it appears in the adjacent districts of Arizona there is valid reason for the assumption that the maximum precipitation is to be found in the Gila basin and the Carrizo and Zuñi headwaters of the Colorado Chiquito.

The curve of 2 inches is drawn across the Mimbres plateau and Mesilla Valley and the lower plains in this territory and Texas until it reaches the valley of the Pecos. The eastern wall of this valley it follows along the 4,000-foot plateau until the valley contracts: thence it passes over the divide into the Canadian basin and across it near Fort Bascom and northerly into the strip of public land. The curve of 3 inches follows that next lower as far as the Rio Grande Valley. Up the sharp western wall of this valley it is drawn as far as Socorro, where it expands to include the Rio Puerco as far as Laguna and Albuquerque in the valley of the Rio Grande, whence it returns southerly upon the 5,000-foot eastern wall of the valley as far as the Organ mountains. Here it crosses the Sierra San Andreas and skirts the Malpais lava fields, the tongue of the 4,000-foot plateau which projects northerly from Texas. Around the southern flank of the Sierra Blanca it passes to the floor of the Pecos Valley, which it follows northward and maintains the same general direction into Colorado. A second appearance of the curve of this weight is found in the extreme west of the territory narrowly drawn south of Fort Defiance.

The 4-inch curve in one system is drawn upon the continental divide reaching into Arizona by the Gila Valley on the south and the Sierra Latil on the north. In the other system it enters from Arizona north of Forth Defiance, crosses the Mesa de los Lobos into the Rio Grande Valley above Albuquerque, and thence follows the next lower curve in its long course out of the Territory.

The 5-inch curve associated with the Arizona rains with but a narrow interval runs concentric with its companion curve of 4 inches upon the Gila-Colorado divide. Curves as high as 17 inches are indicated upon the mountains so included. In the eastern member the 5-inch curve entering from the north upon the western face of the Sangre de Cristo range preserves a southern inclination as far as the 5,000-foot level beneath the Sierra Blanca, beneath which it curves eastward and then northward along the west wall of the Pecos Valley, passing west of Puerto de Luna, Gallinas Springs, and Fort Union, it returns into Colorado west of the upper Canadian. On the northern part of this area is found a considerable area of 6 inches, and in the southern part curves of 6 and 7 inches are drawn about the high levels of the Sierra Blanca.

Rains of summer.—Attention must now be renewed upon one feature of the orography of New Mexico, and throughout the present examination of the summer precipitation it must be held distinctly before the mind that the Territory comprises two slopes, one westerly, one easterly, and between their highest ridges is a narrow trough. Hence arises the necessity for considering these rains in eastern and western members.

The winter rains appear in New Mexico a month later than in Arizona, the summer rains a month earlier and persist a month later. In June the western member of the precipitation, that controlled by the Continental divide, appears in a curve which is almost beyond doubt locally induced, embracing Forts Webster, Cummings, and McRae just without the Gila watershed and immediately to leeward of some of its considerable peaks. The eastern member lying upon the Atlantic watershed is most distinctly marked. The curve of 1 inch follows the line of the Eastern divide, creeping to windward to include Albuquerque and Santa Fé, and sweeping eastward in a broad curve embraces the Sierra Blanca, all of the Pecos basin but its southern edge, and the greater portion of the Canadian Basin. Within this is included a curve of 2 inches drawn along the 5,000-foot contour from the heights of the Sierra Blanca northward to Fort Union, where it opens to include the counties of Mora and Colfax.

In July the rains are strongly marked upon Arizona, and extending into New Mexico show the western member of its rain system in a high stage of development. The curve of 1 inch drawn broadly across the southeastern corner of the Territory shows that the Arizona precipitation has fairly crossed the Continental divide. The 2-inch curve runs determinately in the bottom of the Rio Grande trough from Mesilla to Socorro, by the south it follows out the contour of 5,000 feet westward to reënter Arizona, and by the north joins the system of that region along the 7,000-foot contour. The curve of 3 inches may be considered as being definitely superimposed upon the Gila basin.

Crossing the narrow trough which sharply bisects the Territory, it is found that the heights which were in June nearly the western limit of 1 inch of rain now distinguish the curve of 2 inches, which in its eastern limb traces the contour of 4,000 feet and leaves the region across the eastern edge of the Canadian basin. The curve which in June limited the maximum precipitation of 2 inches has now been advanced to become the 3-inch isohyetal of July and opening at its upper end includes the northeastern highlands of the Canadian basin. Within this curve a loop of narrow limit bounds an area of 4 inches, which extends from Fort Union to Las Vegas, becoming more intense southerly.

This arrangement of the eastern and western members may be reasonably held to present the type of summer rain in its most perfect development just prior to the obliteration of some of its characteristics.

In August, when the rains in Arizona have reached their greatest force, the two members in New Mexico have so closely approached that they overlap and fill the Rio Grande trough. The isohyetal of 1 inch of the combined system, by reason of the marked increase in precipitation, is forced entirely out of the Territory, and but one appearance of any curve of this weight is found, and that is a small cusp obscurely drawn on the headwaters of the Zuñi River.

Recurring now to the western member, it will be seen that the curve of 2 inches follows its accustomed line in the bottom of the Rio Grande Valley, running westward across the Mimbres plateau and the mesas of western Bernalillo County. As in June, the 3-inch curve is drawn in correspondence with the divides which partition off the Gila Basin. Of more limited extent a curve of 4 inches is indicated for the Pacific face of these divides. A 5-inch curve is to be drawn about the region for which Silver City is the determining station and Fort Tularosa conditions curves as high as 8 inches.

In the eastern member the curve of 2 inches remains nearly symmetrical with its July shape, but has pushed southerly into the Mexican State of Chihuahua and into Texas, thence recurves to inclose the Pecos Valley on its west side, and passes from the Territory with the Canadian River. The curve of 3 inches has undergone considerable alteration. It is now drawn southward at the 9,000-foot contour on the Taos range, and retains the same direction as far as the Sacramento Mountains; where it turns north about the flanks of the Sierra Blanca and into the Pecos Valley, passing through Gallinas Springs; thence it runs north and out of the Territory over the Raton range, and after penetrating toward the Sierra Blanca passes east with the lower curves. From the summits of the Sierra Blanca a loop of 4 inches includes Puerto de Luna, and the 4-inch loop of the month before has retracted to the immediate vicinity of Fort Union and Watrous.

By September these seasonal rains are perceptibly breaking in Arizona and undergo considerable loss of intensity in New Mexico, where the two members of the system have drawn apart. The 1-inch curve is drawn from the Raton ranges southerly through the Pecos Valley, across northwestern Texas, the Mesilla Valley and the Mimbres plateau. A shallow arc of a curve of the same weight is drawn upon northern Taos County, opening toward the San Juan park in Colorado. A general 1-inch curve cuts off the northwestern corner of the Territory entirely west of the Continental divide. The 2-inch curve is now upon the western wall of the Rio Grande trough, from Mesilla to the Valverde, and unites westerly with the Arizona group across the plains of San Augustine and Mimbres plateaus by north and south respectively. In the valley of the Rio Grande an area of less than 1 inch is found with Las Lunas and Albuquerque as its foci. Curves as high as 3 inches are restrictively drawn about the Laguna Mountains. In the eastern member the 2-inch curve narrowly extends from Sierra Blanca to the Santa Fé range.

October shows Arizona definitely out of the influence of the summer rains, except for scattered instances of persistence around isolated mountain masses. New Mexico, however, exhibits its characteristic duality in the members of the system which are diffuse and weak. Each member shows but the isohyetal of 1 inch. In the western member it follows the characteristic track at the west wall of the Rio Grande Valley and out over the plains of the Mimbres and the Luni plateaus. An area of 1 inch extending from Colorado includes the headwaters of the Chama, Jemez, and San Juan. The close of October definitely marks the passage of the *temporales* as systematic rains out of the map.

By composition of the monthly elements as before, the duality of the *temporales* is clearly indicated. The western member has appreciably intenser precipitation; the eastern member undoubtedly contains an absolutely greater amount of water, since its precipitation, though less intense, affects a greater area. The line of demarkation is distinctly drawn along the Rio Grande Valley.

The 4-inch or minimum curve appears in the southwestern part of the territory, and with closely adjacent curves of 5 and 6 inches enters from Arizona in the Gila Valley, skirts the mountains which look upon the Mimbres plateau, and passes out into the lower Rio Grande Valley. These three curves rule the Mesilla Valley with their greatest intensity. Curves of 4 to 7 inches appear briefly in the basins of the Carrizo and Zuñi and curves of 5 to 7 inches depend from Colorado on the northern boundary upon the head of the Chama. On the western member curves from 8 to 15 inches are drawn upon the mountains of the Continental divide and the Sierras which part the Gila from the Colorado.

The systematic curve of 7 inches parts the two members. Drawn in from Arizona in the valley of the San Francisco River it runs over the mountains between well-marked curves, both higher and lower, and engages the Rio Grande Valley at Fort Selden. Up this valley with a decided general persistence along the western wall it is drawn to include Chama and Embudo and thence returns southerly without leaving the immediate valley and passes out into Texas. In the Valverde it incloses areas of 5 and 6 inches and similar areas of 4 and 5 inches at Las Lunas, with a 6-inch area extending nearly to Chama.

On the eastern member the limiting curve is that of 8 inches, which, with those of 9 and 10 inches, enters from Colorado on the west face of the Taos range, follows the eastern divide quite to the southern boundary, and then returning northward in the valley of the Pecos passes to higher levels east of Fort Sumner and thus out of the northeastern corner. The 11-inch curve is limited to the territory. It appears upon the higher levels west of the Canadian River and on the cañon course of the Pecos and in this portion of its area includes curves as high as 15 inches, including Las Vegas and Fort Union. Below this area the two members of this curve draw close together near Puerto de Luna and then expand to cover the Sierra Blanca, where appear diffuse curves up to 14 inches at Fort Stanton.

Theory of the rains.—The discussion of the rain phenomena heretofore presented belongs properly to treatises upon pure meteorology. Yet it may not be improper to devote here a short space to the examination of the theory of these periods of precipitation in order that it may appear that the climate and rainfall just noted will be found reasonably constant, since they are based on fundamental facts in nature.

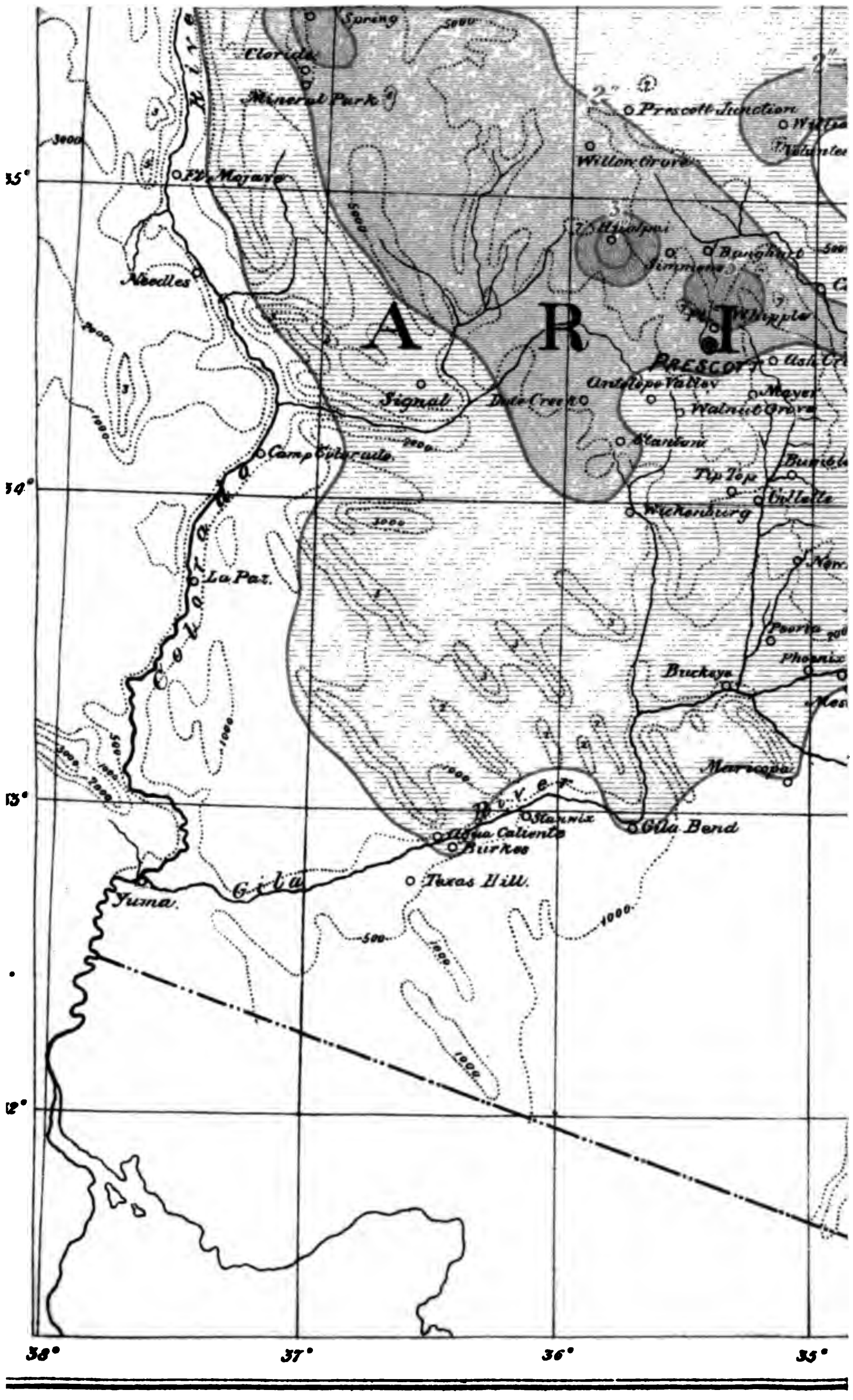
The rains of winter and those of summer are radically distinct in type. In winter the humid winds are drawn across the region under discussion by the influence of low areas over regions near or remote. In summer the winds rush from all sides toward the heated mountain masses and the precipitation resulting therefrom is distinctly local.

In the winter the continental lows hang for days upon the Rocky Mountains or sweep eastward with varying velocity. In their train and toward the areas of diminished pressure which are their center the winds are drawn up the western face of the mountains and ultimately from the oceanic stores of moisture. The type is a simple one and well characteristic of the Pacific climatic group. Step by step the humid winds are drawn over graduated plateaus and extrusive summits, and at each higher step discharge so much of their moisture as is a surplusage over the saturation amount of atmosphere of a given tenuity at a given temperature. There is nothing violent in these systematic drafts of humid air from the sea toward the continental cyclones; the air is chilled by the seasonal causes which make the winter climate; the earth surfaces soon become largely covered with snow and their radiating influence is thus mechanically obliterated; the air lies in practically even strata of uniform temperature. The humid wind is drawn along these ruling conditions, on every plateau it discharges down to the point of saturation; the diminution in absolute amount of moisture is constant and large; by the time it overlies the Rio Grande trough its last available moisture has been condensed by the heights of the continental divide and sifts down to leeward. Practically desiccated the current reaches the summits of the eastern or Atlantic divide; it has but little rain to deposit for the immediate agricultural benefit of the plains; such precipitation as is induced appears as snow which forms a storage reservoir whose supply is constantly utilized until July. Therefore are the winter rains confined in the main to the western member.

Before considering the somewhat complex nature of the *temporales* or seasonal rains of summer it will be necessary to examine the nature of the mountain as a determinant of climate.

By whatever influence induced, atmospheric strata drawn in from the sea and passing over land surface are subjected to an influence in the shape of mechanically directing guide planes. At the sea level and the mean temperature of whatever isothermal zone may be under discussion, calm air is in a position to take up and hold in suspension moisture up to the point of saturation. Thereafter any change in barometric pressure coextensive with, and produced by, elevation to a higher plane, or any change in temperature however induced, alters the point of saturation, leaves the air mass with more moisture than it can hold, and precipitation results. The ideal presentation of the case is that of a smooth plane rising from the sea upon which a current of air is directed; as the air body is deflected by the plane it undergoes expansion sufficient to cause rain when subjected to pressure change due to elevation and temperature change brought about by the same cause; it accordingly in theory precipitates its surplus moisture, that is, the excess over its constantly altered amount of saturation. Practically this ideal case is modified by local alterations of pressure within the mass, and at its face, which makes a more or less violent impact upon the opposing terrestrial mass, an influence which is at its minimum value when the air body moves over a level surface, at its maximum when the air in its course meets with extensive perpendicular cliffs, a condition which Arizona affords in a high degree to the air movement under immediate discussion.

Yet another terrestrial factor intervenes to modify the ideal case, the factor of heat radiation from the body over which the air is drawn, and this is a most important element which may be fairly said to dominate the entire system of the *temporales*. When the elevating plane over which the air is drawn is covered with snow, this factor is in its lowest terms. Snow reflects the incident solar heat back to the air through which it has just been transmitted, and as the air is highly diathermanous it is very little affected by this original and reflex passage of heat, which furthermore is near its minimum during the season when precipitation takes the form of snow. An excellent reflector of heat, snow is also a notably poor radiator, and forms a screen which prevents in a large measure the diffusion of the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Prescott Junction
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Ft. Mojave
Needles
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Date Creek
Antelope Valley
Mayer
Walnut Grove
Camp Colorado
Tip Top
Wickenburg
La Paz
Peoria
Phoenix
Buckeye
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Gila Bend
Agua Caliente
Burkes
Texas Hill
Yuma
Gila
River
35°
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In September the two mountain masses are fully developed as ridges of radiation and convection, the available humidity has been almost exhausted, and although the condensation takes place at high altitudes yet the general air temperature is so much elevated that the practical effect of height on temperature is considerably lessened. The rainfall is materially less; it appears as indefinite areas of slight intensity, and thus the *temporales* disappear.

Evaporation.—The climatologist is expected to supply all data pertaining to his especial study which modify the economic features of the region under examination. The inquiry has so far concerned itself with the passage of moisture from sky to earth. It is now in order to investigate briefly the reverse operation, the passage of moisture from earth to sky. Not much attention has yet been paid to the measurement and record of evaporation, which must considerably modify the estimates of engineers on the hydraulic capacity of their storage basins. Recent atmidometric research authorizes the provisional drawing of the curves of equal evaporation across the Territory. The curve of 70 inches of water evaporated in the year somewhat corresponds on entering the Territory with the Pecos-Canadian divide and the Sangre de Cristo Range; thence in a narrow tongue within Colorado it returns southwesterly, cutting off the San Juan drainage basin. The curve of 80 inches sweeps in across the Pecos Basin as far as the end of the Santa Fé Mountains, where it sharply recurves and passes out along the Gila divide. The curve of 90 inches is drawn in a broad sweep from the southeastern corner of the Territory to pass out by the Gila divide, and after running a narrow loop over Arizona and the southern half of California, it returns into New Mexico for a short distance along the southern border.

The wind and the underflow.—In addition to the water which is passed across the country permanently or intermittently in streams regard must be had to the numerous springs which are an evidence of an underground supply. To these subterranean waters of the great plains has been given the name of the Underflow, and for convenience of reference and to coördinate this work with the researches of others the name may be retained. Yet it must be rigidly stated and strictly understood that in the present state of knowledge no competent evidence exists to prove that this underground water supply partakes in any sort of the nature of a stream sufficiently to authorize the use of the word flow. In individual instances a flow may be proved in continuation of the above-ground flow of the lost rivers characteristic of the region, but that the general body of under ground water has any such progression is certainly not proven.

In general it may be said that the existence of conditions which accompany the occurrence of springs will warrant the opinion that water-bearing strata must underlie the depressed basins and valleys of New Mexico. Hence by digging to sufficient depths and reaching an impervious layer water may be found. The experimental wells bored near Santa Fé, Las Vegas, Raton, and Deming prove that such strata exist, as they have been penetrated; but as the Cretaceous beds through which the wells were sunk are not favorable in so far as the impervious clay beds which they contain are not known to be continuous, or as no synclinals are known to exist, the prospects for a copious flow of water as was hoped for could not have been very promising. Only by reaching the Carboniferous can copious water beds be found, but the estimated depth at which they may be expected is certainly not less than 2,000 and perhaps 3,000 feet. Much better promise attends the sinking of tubular wells to moderate depths. This is meeting with success even around the Jornado del Muerto and west of the Rio Grande. On the Cejita de Galisteo, south of the Galisteo creek, in the Manzano valley, on the Florida plains, and in the Pecos valley water has been reached at depths varying from 25 to 50 feet in what was until of late an absolutely dry country. It is noted that water is found at lesser depths in proportion to distance from the mountains.

Water of this sort is by some distance below the level of the land to be irrigated. In nature it is useless, it possesses but the possibility of utility. To overcome this distance demands the application of work, it involves the consideration of the economics of power. With the present high development of pumping machinery there are no mechanical obstacles in the way of raising this water to such a height as will make it available. The question is simply one of economics; it must be examined from the financial point of view and the operation will be successful in proportion as the interest upon the sum invested in the plant plus the cost of operation approaches the minimum ratio to the gross earnings of the farm. The cost of the plant, the driving of the well and the purchase of the pumping machinery can not well be reduced below a certain limit without impairment of efficiency; the variable quantity is the cost of operation and upon this point suggestions may well be received from the student of climatic science.

The wind in constant motion overhead may be translated into work and when available will supply the most economical power and reduce the cost of operation to the minimum. To this end modern mechanical skill has devised wind motors which work in the lightest airs; which adjust themselves by automatic devices to every change of direction; which by simple machinery of self-reefing appliances regulate themselves to every increase of power, and with no more attention stop when the necessity for the operation is temporarily suspended and resume when need arises. The only question which needs examination is whether the wind of any given region is sufficient day by day to operate the motors. In the failure of mechanicians to supply the adequate data the examination must be made by comparison of wind velocities with those noted in regions where windmills are considered to afford satisfactory power.

In the San Joaquin Valley in California it has been found that windmills are most effective agents, and are efficient so long as the wind does not fall below 4 miles an hour. During the months of May, June, July, and August the wind averages 7 miles an hour, and rarely falls to the minimum limit of efficiency. Viewing this velocity as the datum point the following table of average wind movement at two typical New Mexican stations of observation will show what use may be made of windmills in irrigation:

Hourly wind movement.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Santa Fé	7.1	7.2	6.9	8.0	7.6	6.5	6.0	5.4	5.1	5.9	6.2	5.8
El Paso	4.9	5.6	5.8	6.6	6.3	5.7	4.7	4.8	4.5	4.3	4.5	4.8

IRRIGATION.

At this point the relation of the Signal Service to the question of the irrigation of the arid lands properly determines, and it becomes the duty of the engineer to deal with the facts hereinbefore presented. As a scientific bureau of record and review it has presented the facts of climate and has discussed them. It has shown the amount of rain which falls upon New Mexico in every month of the year. It has indicated the periodicity of the rainfall and the varying amounts precipitated on different regions. It has shown the amount of evaporation which will diminish the hydraulic value of reservoirs. It has directed attention to the wind as a source of power. In the discussion of the data presented it has gone into the argument sufficiently to show that the peculiarities of rainfall are constant and may be relied upon. With this ends the strict province of the Signal Service.

Yet for the sake of completing the popular record it may be found advisable to pass in rapid review the works of irrigation already in operation within the Territory and such others as are planned for speedy installation.

The Territory contains 78,374,363 acres, of which the following tabulated facts may be noted:

	Acres.
Land grants, patented, confirmed, and unconfirmed	14,180,884
Land grants, Atlantic and Pacific Railroad	2,340,840
Indian reservations	2,832,205
Military reservations	134,952
Government land entered to July 1, 1890	2,510,000
Mountain land unavailable	14,125,203
Total occupied land	36,124,124
Unoccupied in every way and available	42,250,239

The amount of land at present actually under ditch may be calculated as follows:

County.	Acres.	County.	Acres.
Bernalillo	12,421	Santa Fé	9,820
Colfax	133,400	Sierra	8,673
Dona Ana	37,621	San Juan	20,000
Grant	9,721	Taos	88,763
Mora	51,279	Valencia	26,429
Socorro	73,464	Lincoln, Chaves, and Eddy	100,000
Rio Arriba	29,623		
San Miguel	38,241	Total	639,055

The amount of land which can be brought under ditch merely in creek and river bottoms and supplied by dams retaining the torrential flow is here presented:

County.	Total acreage.	Irrigable.	
		Per cent.	Acreage.
San Juan	3,542,000	1.12	39,676
Rio Arriba	4,604,415	2.35	108,203
Taos	1,751,975	5.80	191,615
Colfax	4,611,073	3.88	179,832
Mora	2,620,201	3.51	91,707
San Miguel	8,499,881	2.88	246,496
Bernalillo	5,022,136	4.32	215,952
Santa Fé	1,448,000	5.80	83,984
Valencia	5,621,760	1.92	108,138
Socorro	8,939,520	1.65	125,501
Sierra	2,043,972	1.65	34,748
Grant	5,736,920	1.65	97,527
Dona Ana	6,251,000	1.27	81,263
Lincoln	6,483,520	1.36	88,176
Chaves	6,635,600	2.50	100,769
Eddy	4,562,390	2.25	102,654
Total	78,374,363	....	1,723,251

In other words, there is only 37.1 per cent. of this irrigable area actually under ditch. Under this heading of irrigable only the first bottom lands immediately adjoining the streams have been taken into consideration. The great mesa lands intervening between water courses are to be considered as grazing lands which will become agricultural only when water is applied to them by high line ditches. This class of land amounts to 51.8 per cent. of the remaining area, or 20,993,528 acres.

These valuable statistics have been compiled by Mr. H. Hartman, of Santa Fé, who has not only a most accurate acquaintance with all parts of the Territory in detail derived from personal survey of the geology and topography of the country but has also enjoyed access to the most reliable records. The figures which he has supplied, are, therefore, the latest obtainable and are accurate to July 1, 1890.

It will now be in order to undertake a brief examination of the several counties.

BERNALILLO COUNTY.

	Acres.
Total area	5,022,136
Available	2,000,000
Irrigable	215,952
Irrigated	12,421

Through the remarkable peculiarities of its outline this county lies in three drainage basins and extends three-fourths across the Territory. The western portion of the county, amounting to perhaps a third of its area, lies within the watershed of the Little Colorado. The great bulk of the county is in the Rio Grande trough and a narrow prolongation extends over the eastern divide into the Pecos basin and almost to the river of that name. It is natural, therefore, to expect a variety of climatic constants, which is so great as to necessitate the consideration of the county in accordance with the division just made. In the western part there is received about 3 inches of rain in winter and 8 in summer, and the amount of evaporation is below 70 inches annually. In the central part the winter showers do not much exceed 4 inches and the *temporales* are less than 8 inches. Evaporation exceeds 70 inches and in the immediate valley of the Rio Grande may amount to 80 inches. The eastern prolongation is so small and unimportant that its climatic conditions need no express review.

The valuable lands for agricultural purposes are to be found in the valleys of the Rio Grande, the Rio Puerco of the east and the Rio Puerco of the west, the Rio Jemez, the Galisteo, the Santa Fé, and Tuerto Creek. In addition, there are numerous springs which feed small streams and assist in agriculture. Viticulture yields excellent returns under irrigation and is enlisting considerable capital.

CHAVES COUNTY.

	Acres.
Total area	6,635,600
Available	1,500,000
Irrigable	100,769
Irrigated	(*)

This county, recently partitioned out of Lincoln, covers the middle Pecos Valley, extending westward out upon the foothills of the Sierra Blanca. Lying entirely in the Pecos drainage basin, the county receives in summer 8 to 12 inches of rain and lies tributary to a region of 14-inch precipitation in Lincoln County. In winter its rainfall amounts to between 2 and 4 inches. Its evaporation is somewhat more than 80 inches.

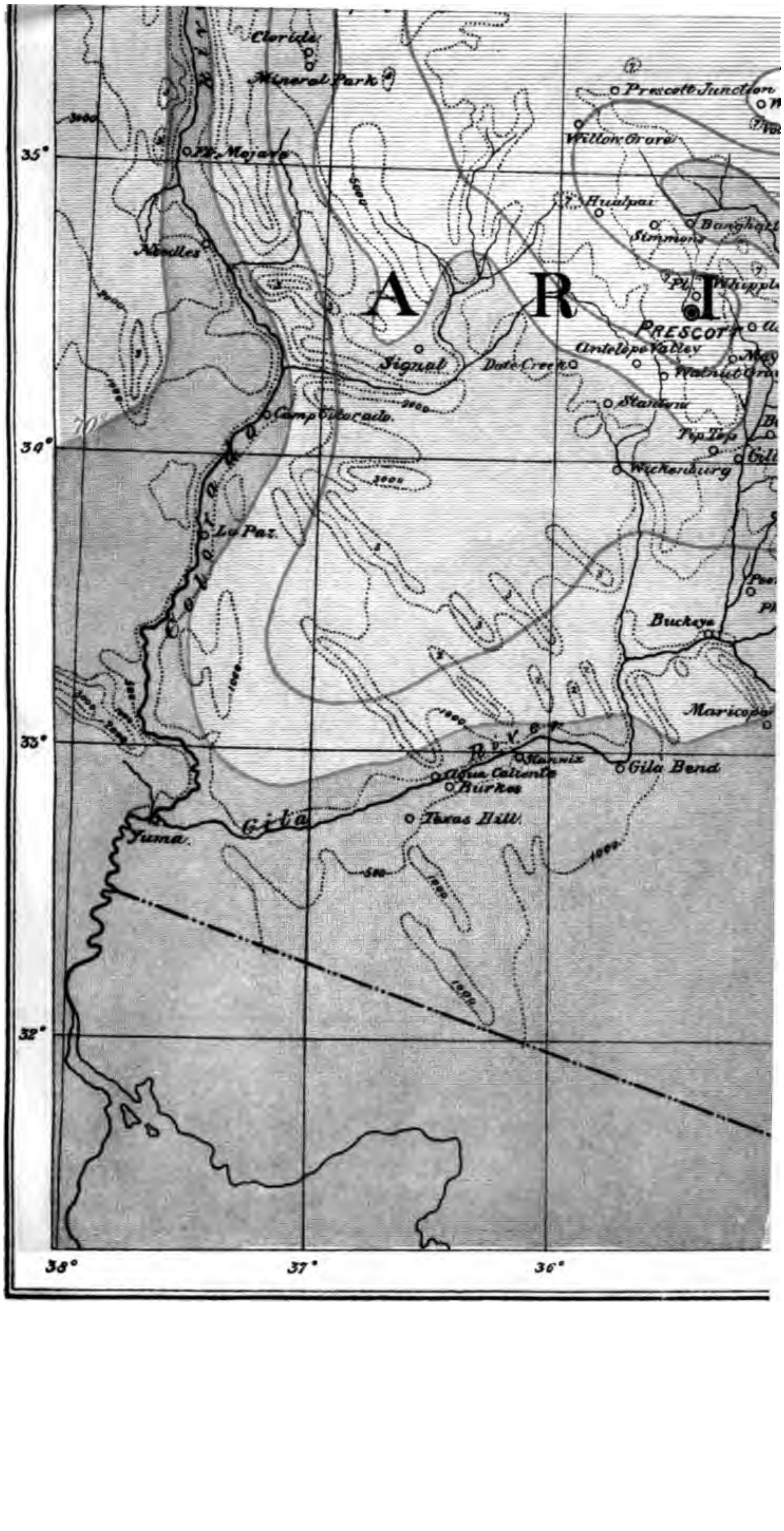
The eastern half is covered by the Staked Plain, but in the west there is rich agricultural promise, and the Pecos and its tributaries furnish more water than perhaps any other stream in the Territory. The land is level mesa of the utmost fertility and covered with a volunteer growth of gramma grass. Springs abound and lakes are many, and all these have been utilized to supply water through gravity ditches to many farms. Two extensive irrigation systems are now in operation in the county on the valley lands near Roswell. One is that conducted by the First New Mexico Reservoir and Irrigation Company, which impounds the flood waters of the White and El Capitan Mountains and conducts the water thus stored 18 miles to serve lands which need but water to blossom into unexampled fertility. The Pecos Irrigation and Investment Company has built a dam across the Rio Hondo and a second on the South Spring River, from which runs a main canal of 35 miles length to serve lands as far down as a point 15 miles below the Rio Feliz.

COLFAX COUNTY.

	Acres.
Total area	4,611,073
Available	2,200,000
Irrigable	179,832
Irrigated	133,400

This northeastern county lies entirely within the Canadian drainage basin and with slight exceptions upon a plateau of 5,000 feet. Its eastern boundary is fringed by an area of 3,000 feet of altitude, and its western boundary is drawn along the lofty ridge of the Taos range. It shows but slight traces of the action of the winter rains, but in April and May the valley of the Upper Canadian, as far south as Springer, is influenced by a precipitation which does not appear elsewhere within the Territory, except that its area extends down into Mora with diminished intensity. For the 2 months this rainfall amounts to some 3 inches. The summer rains are felt in this valley up

* Not obtainable.



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Date Creek
Walnut Grove
Stanton
Camp Colorado
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Wickenburg
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Buckeye
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Gila Bend
Agua Caliente
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This, the southwestern corner of the Territory, is rugged and mountainous in the north, but in the south is covered with plains and mesas of 5,000 feet altitude. Evaporation is high and the county lies entirely within the two branches of the atmidometric curve of 90 inches. In the winter rains it receives between 1 and 2 inches on the plains, which fall rapidly, increases in the mountains to at least 5 inches and probably much more; in summer the rainfall on the plains is 4 to 6 inches, and in the mountains undoubtedly reaches 15 inches, while at the same time the snow of the winter precipitation is evenly becoming applicable to agriculture by its melting. In the Gila Valley and the valleys of its tributaries are pockets and strips of arable land which never need irrigating. On the Florida plains and particularly near Deming there is a region of country which is known to be 50 miles wide and 100 miles from north to south, where an inexhaustible supply of water can be reached by wells no more than 50 feet deep. Windmills for raising this water to the surface for irrigation purposes have proved entirely satisfactory.

LINCOLN COUNTY.

	Acres.
Total area	6,483,520
Available	2,435,500
Irrigable	88,176

Lying on either side the Atlantic divide, Lincoln County in north and south extent reaches from the State line of Texas half way through the Territory and lies just east of the central section. It includes the Sierra Blanca, which has been noted as a great determinant of the rainfall of the Atlantic watershed, and is naturally controlled by the strong influence of that range. In winter it receives from 3 to 7 inches of rain; the *temporales* pour down 14 inches upon it in the summer. Its evaporation is about 90 inches. The face of the country is varied, being composed mainly, and especially in the northern part, of extended plateaus interspersed with valleys and mountains. The character of the soil is various, the larger portion being sandy loam, with considerable areas of chocolate and black soil. Farming depends on irrigation, and under such treatment the soil yields a generous return. The arable lands are for the most part found along the Cienega del Macho, the Rio Ruidoso, the Rio Bonito, and the upper courses of the Rio Jelia, Peñasco, Sacramento, and Pinos Creek, heading on the east face of the divide, and Nogal Creek, Three Rivers, Rio Tularosa and Lost River, on its west face.

MORA COUNTY.

	Acres.
Total area	2,620,201
Available	990,000
Irrigable	91,707
Irrigated	51,279

Lying between the eastern boundary and the summits of the Santa Fé Range, Mora County is entirely within the Canadian basin and has several distinct levels. Its eastern edge is a staked plain of 4,000 feet, the central part is 5,000 feet high, and the western portion, with a general height of 7,000 feet, is crowned with the lofty summits of the range. Except this portion the county is composed of fine, rolling, grass country. Evaporation here is greatly reduced and averages some 70 inches. The winter rains are felt here more generally than in the southern portion of the same watershed; the eastern half of the county receives 2 inches in this season and the western half lies within curves of from 3 to 6 inches. In summer there are from 8 to 10 inches of precipitation on the eastern half, and the western part receives as high as 15 inches. Wells are dug to water-bearing strata within a few feet, and windmills are found quite practicable.

Irrigation is generally practiced, and the ditches are supplied from the streams and from the many natural depressions on the plains, which with very slight labor are turned into reservoirs.

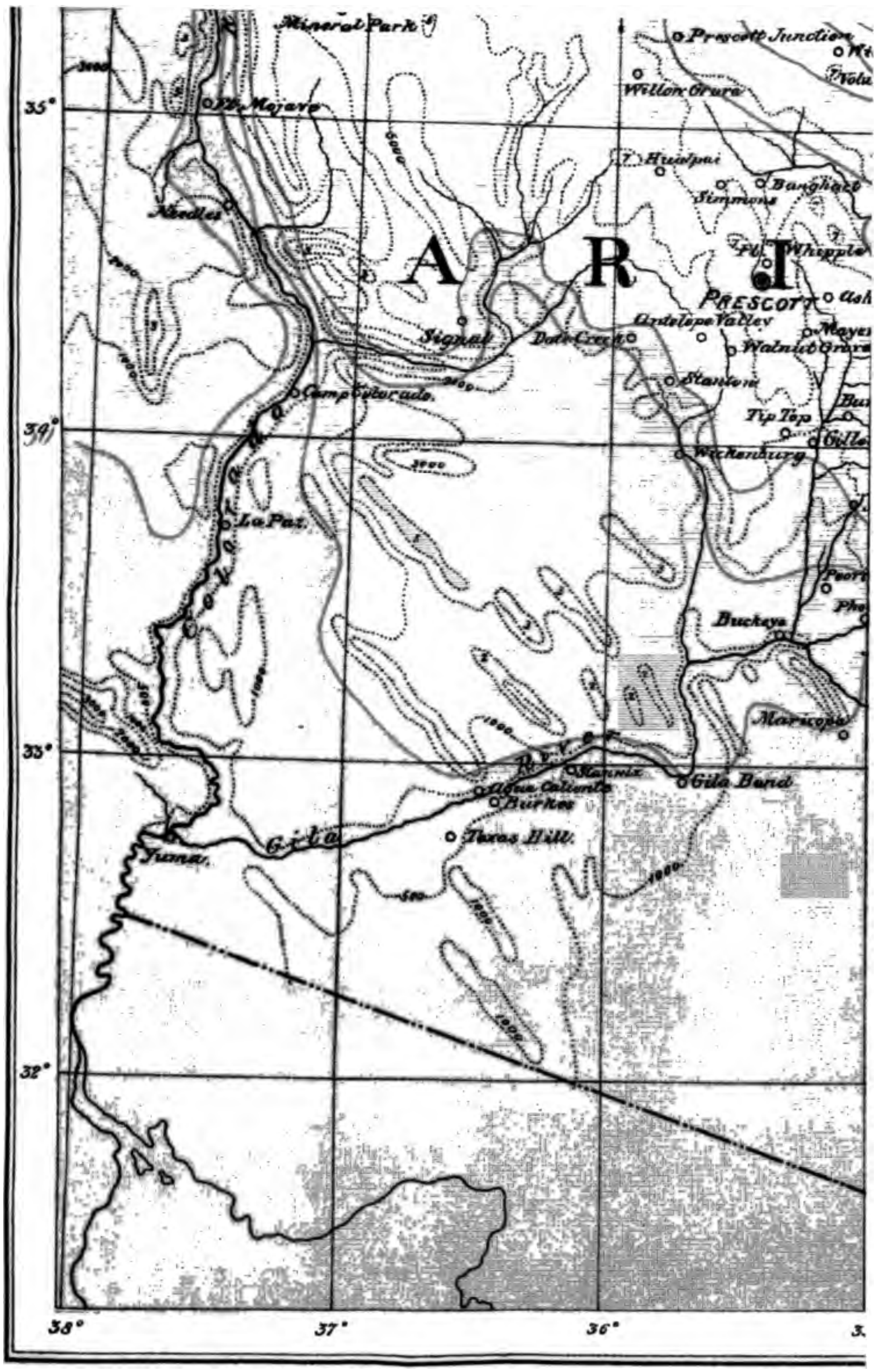
RIO ARRIBA COUNTY.

	Acres.
Total area	4,604,415
Available	2,100,000
Irrigable	108,203
Irrigated	29,623

This county is parted by the continental divide, which covers its eastern half with high mountains and deep valleys; the western portion is high mesa. The winter rains are felt here to the extent of about 4 inches; the summer rains have their minimum at 6 inches, with the certainty that far more would be measured on the mountains. The principal streams are the Rio Chama and the Rio Puerco of the East, with fertile bottom lands which have already been brought under cultivation and soon will be more thoroughly utilized under irrigation now projected.

SAN JUAN COUNTY.

	Acres.
Total area	3,542,000
Available	175,000
Irrigable	39,676
Irrigated	20,000



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As its name would imply, this is a mountain county, lying on the eastern face of the continental divide, stretching thence easterly beyond the Rio Grande to include the northern half of the Jornada del Muerto. From its position just over the divide from the Gila headwaters it receives much of the winter rains, which are there most active and intense. It receives up to 3 inches between the eastern boundary and the 5 000-foot plateau west of the Rio Grande, and in the mountains the rainfall must considerably exceed 5 inches. The western member of the summer rains covers the county with a 7-inch curve on the eastern boundary, 7 inches on the eastern and 13 on the western wall of the Rio Grande, with at least 15 inches in the mountains. Agriculture is most systematically pursued in the bottoms of the Rio Grande and such of its confluents as afford an efficient water supply. It is clear that wells of moderate depth can be made to reach abundant subterraneau waters on the high plain west of the river, and that wind force may be trusted to make them available.

SOCORRO COUNTY.

	Acres.
Total area	8,939,520
Available	6,220,000
Irrigable	125,501
Irrigated	76,464

Climatic conditions can not fail of diversity in a county which compasses three distinctly marked drainage basins, as does Socorro, which includes in its western portion parts of the Gila basin and the Carrizo branch of the Colorado Chiquito basin and eastward lies in the comparatively dry trough of the Rio Grande. The winter rains discharge a scanty 3 inches upon the Rio Grande Valley in its most restricted sense, and the curve of 3 inches is scarcely found short of the contour of 7,000 feet, well west of the river; thence, however, the rise in precipitation is a sharp one to 17 inches at old Fort Tularosa, and much more upon the mountains is commonly observed but never accurately registered. Similarly in summer, while the 7-inch curve of the seasonal fall is found close to the eastern divide, the curve of 8 inches clings closely to the actual channel of the river, the curve of 10 inches comes but little below the high mesa, and the mountains receive 16 inches or more. Agriculture is practiced at chosen spots on the headwaters of the Gila, where no irrigation is needed, along the Rio San Francisco, which has attained some distinction for its wheat crops, and in the valley of the Rio Grande, where the same conditions exist as in Sierra and Dona Ana Counties. Subterranean water has been obtained at slight depths.

TAOS COUNTY.

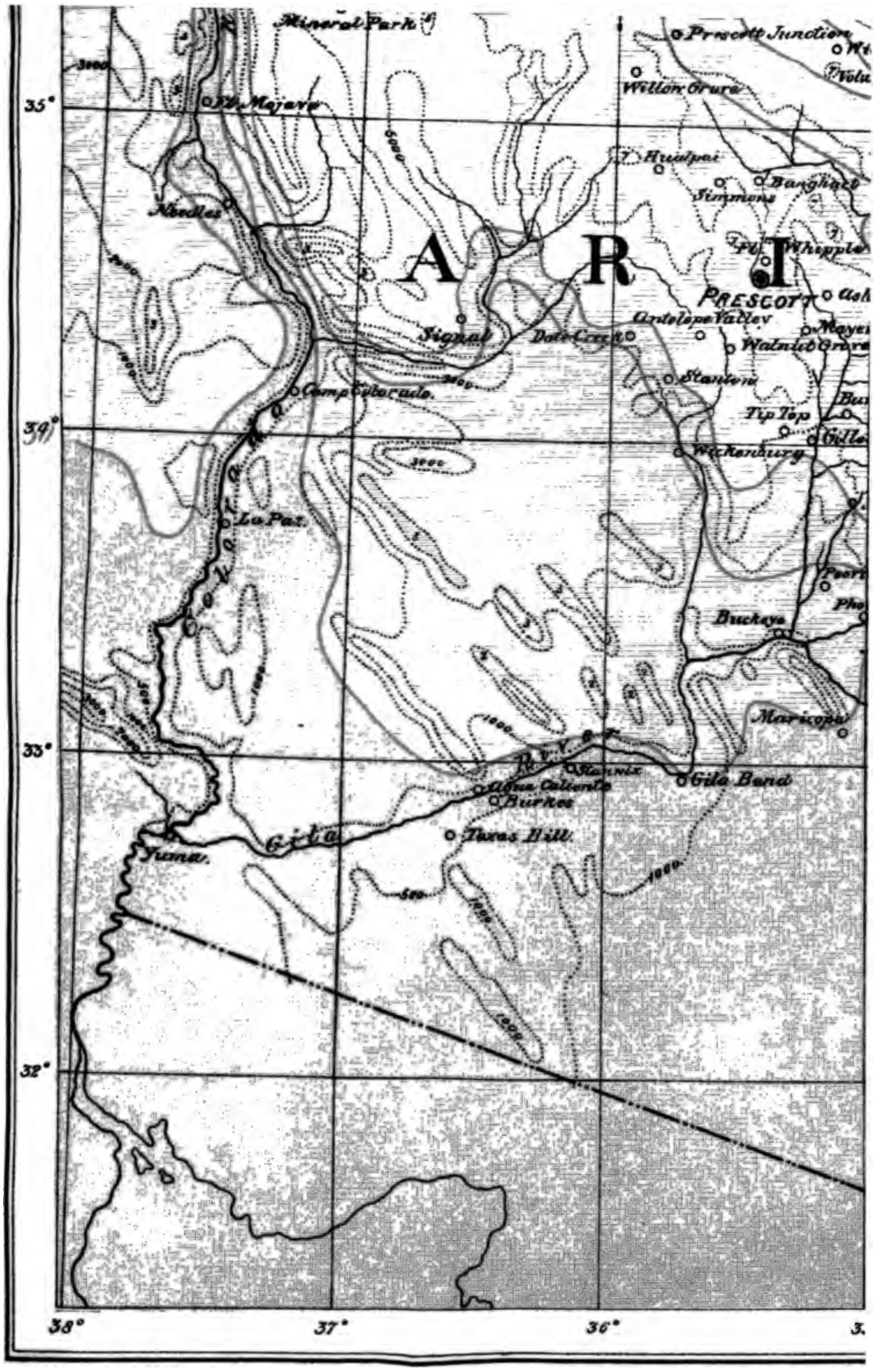
	Acres.
Total area	1,751,975
Available	750,000
Irrigable	191,615
Irrigated	88,763

Resting easterly on the Sangre de Cristo Range and westerly by but a short distance on the slopes of the continental divide, Taos is most emphatically a mountain county. Its winter rainfall is in excess of 4 inches. In summer it receives some 7 to 10 inches of direct precipitation, and the county is otherwise well watered for the reason that its streams head on snow-capped mountains. The Taos Valley Company has already completed several sections of canal to reclaim the lands west of the Rio Grande.

VALENCIA COUNTY.

	Acres.
Total area	5,621,760
Available	2,900,000
Irrigable	108,138
Irrigated	26,429

Valencia partakes of the conditions which have already been noted in connection with Bernalillo County, in that it lies clear across from the Pacific to the Atlantic watershed, including portions of the basins of the Colorado Chiquito, the Rio Grande, and the Pecos. It therefore may be viewed as receiving of the winter rains 4 inches and upward in the west, 2 in the valley, and a slight increase eastward. Similarly of the summer rains its quota is 8 inches and more in the west, a little less than 4 in the valley, and 10 east of the Antonio Sandoval grant. The Rio Grande Valley has been cultivated under ditch for many years, and has never failed to yield a satisfactory return. East of the river there are many fertile valleys rapidly coming under settlement, and in the little known western portion it seems clear that there are considerable districts of good soil which may be farmed.



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37°
36°

over the weather beyond the reach of men elsewhere. In 40 years the flume of the miner has grown into the ditch of the farmer, and brings to light more wealth now than when its stream was directed upon the auriferous gravels. In these 40 years irrigation has extended until it may now be clearly seen to approximate that condition in which all the water available is put to use upon the soil, and no more can be obtained. The limit is in sight even though it has not quite been reached, the limit of water which may be drawn from streams by gravity ditches. The future must deal with other sources of supply and other means of utilizing existing sources.

This is the condition which is seen to confront the future of irrigation in California, and it is with this condition that any must have to do who enters into the consideration of the irrigation problem of this State. In other districts of the so-called arid region, it is necessary to show that the soil will repay the introduction of water, that crops can be made to grow on rainless plains, that in short irrigation is an experiment worth the trying. California, however, has settled all these minor points long since, and now the question is pure and simple to determine what amount of water is available for the irrigation of lands of latent fertility. While other States and Territories are just entering upon the practice of irrigation in its first stage of supply through the gravity ditch, California has nearly passed through that stage and is now looking upon the second stage, the era of water storage on a large scale. The engineer is called upon to show what streams may be stored by damming their flow, to calculate the amount of water which may thus be reserved against the time of need, and in general to fix the limit of available supply. That question is now engaging the careful attention of those to whom it is of vital importance, and they are examining it in all its bearings. In their investigation they find that the economic limit of available water has a direct and close dependence upon the limit fixed by nature. This limit it becomes of paramount importance to determine, and for this determination recourse is had to the Signal Service, which, with its records covering the climatic systems of the whole country, is the final authority.

The economic limit is the ability of the engineer to devise means for catching and storing the water on the earth, and drawing upon the streams beneath its surface. The natural limit is the amount of water which reaches the earth, in other words the rainfall. To the consideration of this single point the present inquiry is restricted, save in so far as it is found necessary to examine collateral lines of research which may alter or condition the amount and character of the precipitation.

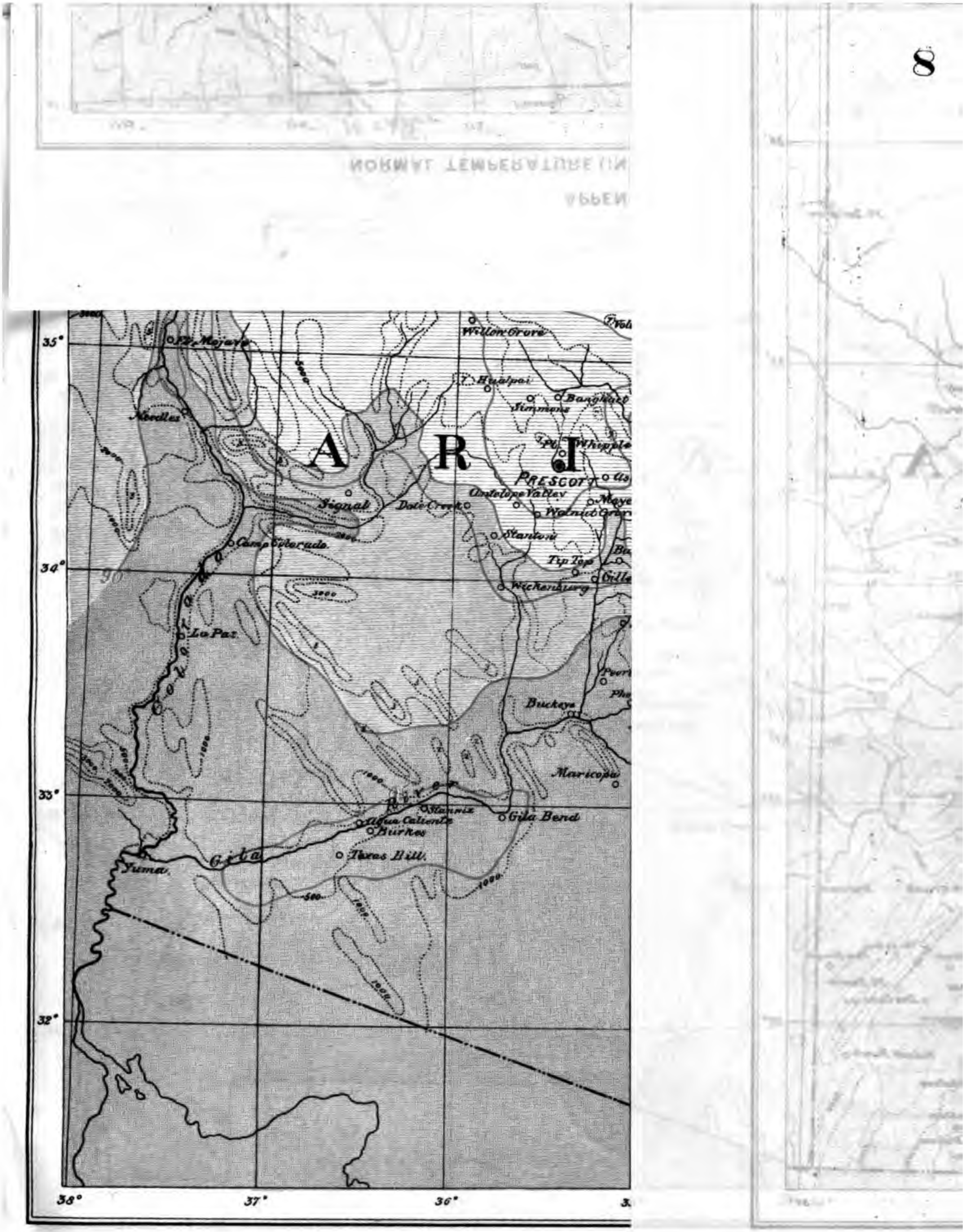
At the outset and before entering upon the more purely climatographic examination, it will be found necessary to devote some attention to the geographical physics of the two States, California and Nevada, which form the subject of the present memoir. This course is necessary because the land with its valleys and summits is not merely passive in receipt of the precipitation which falls upon it. It is an active agent in producing precipitation and in conditioning its amount and intensity. The mode of this activity will be presented in this discussion together with such statement of its causes as is justified by the available data. It is only by comprehending well the constants of nature in the sea on the one hand and the mountains on the other that one can comprehend at all the character and amount of the Californian rainfall and its individualities of annual periodicity.

PHYSICAL GEOGRAPHY.

Two influences dominate the climate of California, radically dissimilar in every particular, combining in ever varying forces to produce the resultant which is recorded by observers of the weather. One is the sea tending always to charge the air with moisture, the other is the mountain mass tending always to discharge the moisture from the air. The combination of these two activities in varying proportions is responsible for the variation in the amount of precipitation, including months of drought. It is necessary to consider these two active and determining forces not merely in their resultant, but so far as is possible by resolution into their component forces as well. In the present state of knowledge the resolution can not be complete, yet the extent to which it can be made affords interesting results.

The mountain factor.—The States of California and Nevada abut upon the maximum extension in latitude of the Cordilleran system, by which designation is inclusively implied all those ranges, basins, and valleys, which in a looser description are often spoken of as the backbone of the continent and considered to include everything from the eastern ranges of the Rocky Mountains to the Pacific Ocean. Between the parallels of 35° and 40°, this system attains not only its greatest breadth but its greatest general elevation; it extends from eastern Colorado across four States and into the ocean, where but a few miles from the Californian coast it breaks short off from the continental shelf and plunges to abysmal depths. Not only is its width greatest between these parallels and therefore productive of its maximum influence upon the general circulation of the atmosphere, but also by the massing of many of its extreme heights within these same limits it exerts such violent influence of perturbation as is due to sudden uplifting of air bodies to great altitudes. Thus in Colorado there is a chain of peaks all rising to a height of more than 14,000 feet, of which Pike's Peak is the eastern outpost; Utah and Nevada form the Great Basin on a general level of 5,000 feet; in California the Sierra Nevada has its peaks of 14,000 feet as well as Colorado, and at the very edge of the sea is another range of mountains lower than the Sierras, yet of marked influence upon the climate and the rainfall in particular. These systems within the limits of the two States now under examination may properly claim more detailed investigation.

The characteristic orographic feature of this region is the Sierra Nevada, and it is as well the predominant climatic instrument both for California to which it gives the rain and for Nevada from which it withholds it. The geographer and the geologist unite in considering this the most interesting and important link in the Cordilleran system, and the climatologist must unhesitatingly and without reserve give adhesion to their judgment. In brief description it is a long and elevated mountain chain, on the whole the most conspicuous on the continent. It displays


8
A R I
Ft. Mojave
Needles
Willow Grove
Hualpai
Simmons
Ft. Whipple
PRESCOTT
Antelope Valley
Signal
Date Creek
Walnut Grove
Stanton
Camp Colorado
Tip Top
Wickenburg
La Paz
Colorado
Buckeye
Maricopa
Gila River
Stanwix
Gila Bend
Agua Caliente
Burkes
Texas Hill
Yuma
35°
34°
33°
32°
38°
37°
36°

Range. For convenience of reference it may be distinguished as the Southern Coast Range. It contains two members following different angles. The northern member is drawn southeasterly from the Tehachapi region, where it is attached to the conjoint northern systems; reaching its greatest elevation and maximum width at the San Bernardino Peak it becomes less important as it is traced beyond and soon sinks to comparatively obscure hills upon the desert plain stretching away toward the head of the Gulf of California. From the San Bernardino Peak the second member follows the coast and develops as the characteristic range of Baja California.

Entirely east of the Sierras, Nevada is included within the Great Basin except that for a short distance at its southeastern boundary it enters upon the Colorado Plateau, which here has lost many of its prominent characteristics. The Great Basin is a high plateau upholding many mountain ranges with a general direction of north and south and considerable height above the valleys which occur between. As a rule these mountain ranges preserve their individuality and at least twenty such masses are to be numbered across the State.

Having thus indicated the orographic skeleton of the country it comes next in order to examine the valleys infolded between these mountains.

As it is the greatest, so is the Great Valley of California the most important: it frequently takes the names of the rivers which traverse it and is known in its northern portion as the Sacramento Valley and in its southern half as the San Joaquin Valley. It is fenced on the east by the Sierra Nevada, on the west by the Coast Ranges, and at north and south by the coalescence of its side walls. Between these walls it has a length of about 450 miles and maintains the average breadth of 40 miles, taking in the lower foothills so far as they are available for agriculture, and thus contains some 18,000 square miles. The valley is almost completely surrounded by high mountains and the only breach in the wall is at San Francisco midway of its length, and at the water level this gap is less than a mile wide.

In the Coast Ranges are many fertile valleys which vary greatly in size and conditions according to position. North of the bay of San Francisco the valleys of the immediate coast are as a general rule abundantly watered but very much restricted in area. Two such may be mentioned as of greater area than the others, Eel River Valley and the Hoopa Valley of the Klamath and Trinity Rivers. South of this gap the important valleys of the shore are somewhat larger than on the northern coast but not so well watered, as will appear in the examination of that branch of the subject. The valleys well within the Coast Ranges are far larger and more important, and here again a distinction is to be noted between those of the bays north of San Francisco and San Pablo and those south. North of the bay the valleys uniformly open into the Sacramento Valley and each has a name which has nearly the value of a trade-mark in the markets for farm, orchard, and vineyard produce. Such are the Sonoma and Napa valleys opening upon San Pablo Bay, Vaca and Capay Valley opening directly upon the Sacramento Valley, and north of this latter a series of smaller, or, in the language of the country, pocket valleys. South of the bay on the dry eastern slope of the Coast Ranges not a valley is to be found of any moment. West of the summits are to be found several fertile valleys. Of these the valley of Santa Clara and the Alameda open on the bay of San Francisco, and the valleys of the San Benito and the Salinas open on the Pacific at the bay of Monterey; each is large and the latter is particularly well watered.

The valleys of the Southern Coast Range are uniformly fertile and of obscure boundaries, and have considerable available area, in which they resemble the valleys tributary to the Sacramento Valley. Notable are the valleys of Santa Ynez and Santa Monica, the rich valleys of Los Angeles between Cahuenga and San Juan Capistrano, and the equally rich though more distinct valleys of San Diego.

A word has already been said incidentally of the Sierra valleys. Upon the Sierra side of the Great Valley the tributary valleys are in the main small and unimportant: they soon contract upon their available area, and at but a short distance away from their mouths they have assumed the appearance of rugged cañons whose only value to the agriculturist is in proportion as they are found to afford available sites for storage reservoirs. Within the ranges of the Sierras the valleys are for the most part impracticable and partake of the character which finds its highest expression in the Yosemite Valley. On the eastern face of the mountains the valleys are uniformly cañons of steep grade and denuded bottoms.

Nevada has a peculiar banded system of mountains and is similarly striated with valleys intervening which are deep and persistent. These valleys are in general sinks or playas and their lower portions are frequently occupied by pools whose size is dependent on the amount of precipitation during the foregoing rainy season. Two such sinks are larger than the others, the sinks of the Humboldt and Carson, and these two are not only upon the same level but often united and thus mingle the drainage of the northern portion of the Great Basin with the precipitation upon the eastern slope of the Sierra Nevada.

Southeast of the decadent portion of the Sierra system and south of the Nevada plateau occurs a considerable area of low desert land, in general less than 1,000 feet of altitude. At one point there is in this desert an area with a length of 60 miles quite below the level of the sea, of which the lowest portion is 263 feet below.

The Oceanic factor. -This presentation of the mountain masses of the region under study has been made for the purpose of showing what influences may be counted on as constantly exerted to discharge the moisture from the atmosphere. Another influence is constantly exerted to charge the atmosphere with moisture and this influence should be examined in its turn. It is found in the Pacific Ocean which washes the entire coast of California and makes one notable irruption within the continental mass.

The largest of all the oceans, the Pacific, is least subject to perturbing influences of a local character. Its conditions are constant over large areas, its currents both of wind and water are drawn in broad sweeping curves in which extent of space and time of passage serve to override all mere local or temporary modifications. Thus it is enabled to present almost the ideal problem of oceanic circulation and to array upon the climate of California, and in

a modified degree upon that of Nevada, a few masses of simple influence which become involved and difficult of study only through the continental disturbances.

Without interruption that part of the North Pacific Ocean which may be considered as modifying the climate of California stretches away over very nearly 100 degrees of longitude. To the west it is bounded by the extreme Orient, the islands of Japan with their northern projection over the Kuriles to the coast of Kamtchatka and their southerly connections with the Philippines. The northern limit is drawn by the Aleutian Islands and the eastern border is the shore of North America. To the south no consistent mass of land appears to hem this ocean in, yet the barrier is none the less strong because it may be measured only with the instruments of the meteorologist. It exists at the thirtieth parallel of north latitude. Below this bounding line is the region of the northeast trade wind and the westward drift of the equatorial current, and these two serve sufficiently to bound in wind and water the great basin above.

It is a basin within these limits, a rough ellipse having a major axis of 100 degrees of longitude and a minor axis of 25 degrees of latitude. It has its characteristic systems of circulation both of atmosphere and sea.

The strongly individualized ocean current of the region is the Kuro Siwo. Developed from the cumulative progress of the equatorial drift and directed by the rapid alteration in the plane of the sea bottom and the trend of the Asiatic coast, this warm stream moves across the whole northern Pacific. Occurring in a broader sea it shows several important differences from the Gulf Stream—it has a slower motion, its warmth is not so strongly contrasted with the water through which it flows, and the wind blowing counter to its course frequently avails to deflect it or even check it entirely. Its eastern development and dispersion has been for years a battle ground for theorists, and even now it is impossible to say definitely that it reaches any part of the Californian coast.

The winds upon this basin are of the system of the Passage Winds, which are developed upon the surface of the earth by the descent from high altitudes of upper currents. In general these winds vary with the latitude from southwest, westerly, to northwest. It should be noted that these winds begin to appear about the parallel of 30° north, and that at first they are a practically dry wind, but presenting all the best conditions for absorption.

CLIMATIC PHYSICS.

There have been now presented to consideration the two grand factors, which in a broad sense may be said to determine the climate of California and Nevada, and to differentiate the varying climates of the several districts into which the region is divided by nature. This presentation has been made strictly in the terms of physical geography; the inquiry will now proceed to examine the interacting relations of these two factors of the climate, and more especially the rainfall.

The Cordilleran influence.—The Californian parallels lie entirely within the northern zone of the Passage or Anti-trade Winds, and are therefore under an atmosphere with a uniformly eastern progression as a part of the general system of atmospheric circulation of the globe. The local use of the name Trade Wind at San Francisco, and to a less degree in other parts of the State, must be commented upon to prevent misapprehension. By common usage the term has been erroneously applied to the strong northwest winds of that vicinity; in connection with the general system these winds are Passage Winds and will be examined as such; the local usage is here mentioned in order that it may be clearly stated that it is not followed.

These Passage Winds have a clear sweep across many thousands of miles of sea, and in all this course they incur no resistance save such as is caused by convective friction due to varying amounts of pressure within their mass. But the moment they cease to flow over the sea and begin their course over the continental mass they are subject to violent perturbations, and present all the features of turbulent motion, its irregular and rapid changes of pressure, its rapid expansion, its sudden alterations of the saturation constants, and variations of temperature. These perturbations must be examined in the light of mountain influence in general.

The wind drawn in from sea by the general circulation of the atmosphere may be taken to have in suspension the maximum amount of moisture, and, other things being equal, to approximate the saturation amount theoretically to be expected in air of a given pressure and at a given temperature. The only influences which will tend to vary these amounts are due to variations in pressure and temperature caused by possibly distant commotions of the atmospheric envelope. Advancing upon the land the air current immediately encounters perturbing influences of many sorts, of which these may be mentioned: Friction upon uneven surfaces, convection caused by radiation from irregularly heated bodies, and vortex motion within the stream, these being influences at work no matter what the inclination of the surface; of perturbations due to planes which are at a considerable angle with the horizon, there are these in addition, the development of pressure by transformation of the impact of the air current upon the elevating plane, the loss of temperature by elevation, the alteration of pressure, and the expansion due to the same cause, and the great diminution in the amount of water which may be held suspended. There is further to be taken into the count the variation of the character and amount of the mountain influence due to alterations in its radiation of heat. This variation is seasonal and follows upon the astronomical change of seasons at a greater or less interval as conditioned by local circumstances of environment. In brief it may thus be expressed: When snow clad, and so long as the snow area maintains a superficial extent great enough to affect the air passing over it, the mountain presents its minimum influence of perturbation because the snow is most actively employed in reflecting the incident ray of solar heat which in its reflex as in its direct passage exerts little effect upon the highly diathermanous air, because the snow has but slight absorptive power and its conductivity is so small that the mountain is stripped of all the radiating influence which without the presence of this screen would be actively exerted. The air body thrust from behind is forced up the slope, everywhere assuming the conditions normal to the elevation, the isobar and the isotherm in which it is found; at the summit the resisting and transforming influence is withdrawn, the vertical component in its motion is

lost; the horizontal component regains its full value, and the air moves off in its proper direction at the height to which it may have been thrust and communicates its motion to the strata below by the constant intercirculation of contiguous air spaces. The disturbances are all at their minimum, and so is the precipitation.

But when the snow cap has melted away another set of influences comes into operation. The mountain then exposes its utmost absorbent surface, and in consequence becomes a highly active radiating agent. The moving current of air which passed over the surface of snow with the least amount of irregularity is now involved in a series of convective foci, the regular imposition of its strata is completely upset, it is suddenly drawn to great heights by these violent updrafts, and its excess of moisture is condensed by the rapid expansion. The period at which this action sets in upon the Sierra Nevada is dependent upon the monthly march of the isotherms under the movement of the sun from north to south. The length of time during which it may continue is modified by local conditions which would need individual examination.

So far the attention has been directed to the passage of the air current over the ridges. That is not the only direction in which its activity is manifested. A column of air moving horizontally against a vertical barrier would be fairly resolved into two components moving respectively to the right and left along the face of the barrier. Incline the barrier in the direction of the motion and a portion of the column would pass over, the amount of this passage and its ratio to the horizontally perpendicular currents being greater in proportion to the inclination away from the vertical. This case is presented by the Sierras: part of the wind goes over, part goes south, and part goes north. Thus alone can the circulatory system of the Great Valley be satisfactorily explained.

Two elements in the turbulent motion of the progressive air flow condition precipitation, not so much in amount as in position. Impact with an elevating plane produces in the air stream an extensive system of eddy whirls and vortex motions, which induce a circulatory system within the mass. The moisture just at the pressure and temperature point of precipitation is then subject to a distributive influence, which diffuses it for a greater or less distance from the condensing mountain range and causes it to appear as a windward rainfall. Similarly, of a rain to leeward of the condensing heights, the amount is determined by the altitude of the ridge, and decreases in the ratio of the altitude. The effective operating causes in this case are two. The first is, that on the weather side of a high mountain range the moisture is largely precipitated before the elevation of the summit is reached, and thus there is absolutely little left to drift over on the leeward side. The second is, that the small amount of rain which is condensed at altitudes sufficiently high to allow it to drift past the condensing summit is subjected to influences which have a tendency to still further reduce its amount, as it falls into vertical isobars and isotherms, which condition a higher dew-point and a decreased precipitation.

These considerations have been presented as general principles. Before advancing to a discussion of their specific and local appearance upon the region under review, it will be necessary to examine in a similar way the principles which hold upon the sea. Having examined the factors of discharge of moisture, some study should be given to the sources whence that moisture is drawn into the air.

The Pelagic influence.—Regarded broadly as a portion of the general atmospheric circulation of the globe, the Passage Winds may be held to be practically desiccated at the time when they appear as surface winds. Their former course has been in the extreme upper regions of the atmosphere, in ruling conditions of excessive cold and tenuity, which have served to remove almost their last humidity. Drawn suddenly to the surface at about the thirtieth parallel, they are in marked contrast with the sea. The sea is warm and in the best condition for giving off moisture, the wind is most receptive, and the amount of humidity which it will assume is mainly conditioned by the distance through which it passes over water surface. In the regions where the wind prevails with southwestern inclination this distance may be easily determined, and will serve as a means of comparing the average amount of moisture received by places on the Pacific coast. The formula to be applied is this: The distance traversed by the wind is equal to the square root of twice the square of the difference of latitude of the place measured from 30 degrees. This is based upon the theoretical consideration that a dry wind will assume a certain proportion of moisture from every mile of water surface traversed. It must be used with caution, for although it may be proved to be of general application, it is subject, like all general principles, to the modifying influence of local and temporary conditions which may avail to override it. Yet, from examination of the annual precipitation chart of the region, it may be shown that this influence does exist and does exert a considerable activity in governing the amount of rainfall. In this examination it should be said that any annual chart tends to obliterate all local and temporary conditions and to strongly characterize all features which are general and secular.

In the following table the results of such a general examination are presented. In the first column the position of five critical stations is given to the nearest degree of latitude, and disregarding the difference of longitude which would be subtractive in influence. The second column shows the length of water surface traversed by the southwest wind, computed from the formula above presented. The third column is obtained by using the least distance in the second column as a unit and computing the values of the other distances relative to it. The column of measured rainfall is taken from the records of the Signal Service. To obtain the values of the theoretical rainfall the minimum precipitation of the observed series has been assumed as the unit of water carried by the wind, and from this unit the other values have been computed by multiplication with the factors in the second column. The differences are noted immediately following:

Humid constitution, Passage Wind, North Pacific.

Station.	Traverse.	Per centage	Rainfall, measured.	Rainfall, theoretical.	Difference.	First function.
San Diego, 33° N	252	....	10.26	....	....	
San Francisco, 38°	672	2.66	23.80	27.29	+ 3.49	
Westport, 40°	846	3.36	37.84	34.47	− 3.36	
Columbia Bar, 46°	1,350	5.36	67.68	54.99	−12.69	12.69 − 3.36 = 9.33
Tatoosh, 48°	1,524	6.04	94.42	61.97	−32.45	32.45 − 12.69 = 19.76

It will be noted that while the computed precipitation is in excess of that actually measured at San Francisco, the three succeeding stations show the actual precipitation to be in excess by considerable amounts. These stations are all upon a section of the coast line which has many natural peculiarities to distinguish it from the trend below Cape Mendocino. The column of differences shows that while this theory of the humid constitution of the southwest wind may account for a certain portion of the rainfall, there yet remains another portion for which other causes must be sought. The differences themselves show some relation to one another and prove the increment to be progressive with increased northing in latitude. Examine the functions of these differences and this appears distinctly. The difference of the differences Westport–Columbia Bar is 9.33, and the difference of the differences Columbia Bar–Tatoosh is 19.76. The northern function is twice the southern. It becomes a matter of more than mere curiosity to discover what humid influence has such an increment northerly. Here is painfully felt the lack of data, for the oceanography of the Pacific has yet to be written, and even the materials are scanty. But one thing is certainly known, because universally observed, and that is, that within the zone of the Passage Winds across the great ocean the wind hauls westerly in close ratio to the latitude.

The wind which moves the rain upon the northern Pacific coast is then not rigidly a southwest wind. It blows from nearer west, traverses more water, absorbs more moisture, and precipitates more rain, and this proves a factor of progressive increment to the north and capable of producing an influence of perturbation such as has been beautifully revealed in the functions of the differences in this inquiry.

Evaporation.—This element introduces a most important factor in the examination of the availability of water precipitated as rain or snow, and at the outset it may be said that this influence attains a great intensity within these limits, and in fact that one of the two culminating points of evaporation is found in the sink of Owen's Lake where the annual amount exceeds 100 inches.

Two systematic series of observations have been conducted within this region. One will be found discussed in the Signal Service Monthly Weather Review for September, 1888. The instrument used in securing these records was an evaporometer of the Piché pattern, and the observations were conducted from July, 1887, to June, 1888, inclusive. The records of the ten stations which determine this element for California and Nevada are here presented:

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Yuma	4.4	5.2	6.6	9.6	9.6	12.6	11.0	10.2	8.2	8.2	5.5	4.6	95.7
Keeler	3.0	4.6	6.3	8.7	9.3	11.9	12.8	13.9	10.6	8.8	5.9	4.8	100.6
Fort Bidwell	0.8	1.8	1.8	4.6	5.2	4.0	8.8	8.1	5.0	4.6	2.4	1.3	48.9
Winnemucca	0.9	2.8	6.2	9.1	9.3	10.1	11.5	12.0	9.9	6.6	3.7	1.8	83.9
Red Bluff	3.0	4.6	5.4	6.1	7.0	6.9	11.0	10.7	10.1	10.5	5.9	3.6	84.8
Sacramento	1.8	3.1	3.7	4.3	4.2	5.6	5.9	5.6	6.5	7.3	3.9	2.4	51.3
San Francisco	2.7	2.7	3.3	3.1	2.8	3.1	2.4	2.5	3.3	5.0	2.8	3.0	36.7
Fresno	1.8	2.8	3.0	5.6	6.0	7.0	9.1	10.2	7.6	6.7	3.8	2.2	65.8
Los Angeles	2.3	2.0	2.8	3.4	3.0	3.8	3.2	3.5	3.1	4.1	3.0	3.0	37.2
San Diego	2.9	2.7	2.5	2.7	3.3	2.8	3.2	3.3	2.9	4.3	3.2	3.7	37.5

From these records and similar ones obtained at other stations over the country it has been possible to construct provisional curves of equal annual evaporation, whose value is qualified by the mode of obtaining the record and the limited period of observation. The curve of 100 inches is drawn with close agreement to the floor of the valley of Owen's Lake. The curve of 100 inches on the strength of observations at Keeler and Yuma is drawn as a narrow loop entering California at Yuma, running along the eastern base of the Sierra Nevada until just north of Owen's Lake it recurves southeastward over the 3,000-foot plateau in Nevada and enters Arizona a little north of Mojave. The 90-inch curve is given a course very closely parallel to this, but at its northern limb is narrowly projected upon the 3,000-foot plateau of Nevada. The 80-inch curve follows the high line of the Sierras, includes Winnemucca, and returns over the White Pine country in Nevada. The curve of 70 inches is drawn along the southeastern deserts and the western flanks of the Sierra Nevada swinging northeastward from Red Bluff and beyond the northern boundary into eastern Oregon. The 60-inch and 50-inch curves are drawn upon the southern coast ranges and the extreme length of the great valley, whence they pass northeast. The 40-inch curve follows the coast ranges and parallels the coast line.

The other series of observations was conducted by the State engineer of California at various points in the San Joaquin Valley, 7 stations in all. The method employed was to measure the actual amount of water which evaporated from pans in close proximity to the water or land surface. On this account the two systems of observations are not conformable and no comparison can be attempted. These latter records may be found in William Ham Hall's Physical Data and Statistics of California.

CLIMATE AND WEATHER.

There have now been presented the two great superficial factors of the California climate and an explanation has been given of the general principles most prominently displayed in the activity of each factor. The mechanical resultant of these two influences under higher determining conditions is the climate of California and Nevada, a climate which differs from that of any district within this country, and, which, practically constant as a whole, displays equally constant differences between the several natural districts into which the region is divided. Yet before proceeding to the investigation of the several districts and the study of how the influences at work therein are combined in varying proportions, it may be well not to lose sight of the fact that the region has a distinctive climate as a whole, and on this account it will be advisable to present a general review of the climatic characteristics which dominate the whole region.

The distinguishing characteristic of the climate of the region is that varieties of weather endure practically unaltered for days at a time, and even when supplanted by others return again and again, and on each such recurrence are symmetrical with their former appearance even when they are not practically identical. In this regard there is a wide variation from the conditions which obtain elsewhere in the United States. Nor is this the only difference. Another notable one is that the storms of the Pacific are with comparative infrequency traced across into the Central valley and the Atlantic slopes. Another is that storm frequency increases rapidly toward the north.

When the area of low barometer of considerable depth overlies Oregon and Washington and probably is central far to seaward, and the cyclonic type appears, its translation east ward is checked if not prohibited by the barrier of the Cascade Range and the Rocky Mountains which here begin to fuse. Held back by the mountain wall and the equally potent barrier of high pressure eastward the low is kept beating against these obstacles and the high remains steadfast over the Great Basin and the Northern Plateau. While this condition endures gales are felt upon the Californian coast as far down as Cape Mendocino and the rain occurs in the Great Valley and down the coast to San Luis Obispo. These storms leave the southern part of the State untouched except when a subsidiary low is developed over the Colorado Desert when the brief "Sonora storms" occur.

When this low area is shallower and can be plainly seen to have its center not far out upon the sea but over Washington, and the high is plainly marked upon the Great Basin, then occur light showers from San Francisco northward, with strong gales at Cape Mendocino, the temperature over the dry area is usually high and occasionally of steep gradients and in the Los Angeles region the warm Santa Ana winds occur. The rain rarely passes south of San Francisco except in cases where the definition of the high is so strong toward the south of the Great Basin as to condition a low advancing over the Southern Coast Ranges and back of the Sierras to meet it, then light showers may occur between San Luis Obispo and San Diego.

These two cases have presented the conditions of low pressure over Washington and Oregon accompanied by rains which for the most part occur in California only in the region north of the southern inosculation of the Coast Range and the Sierra Nevada. When on the other hand a high area rests upon the two northern States and the low type is permanent over Southern California it conditions for California a climatic manifestation of extremely unstable equilibrium and while this arrangement of the meteoric elements is of frequent occurrence it is often of short duration. When the low is in the north rain falls upon Califor nia, when the high is in the north fair weather is a marked concommitant.

During the perfection and greatest intensity in the prevale nce of this arrangement and while the isobars are perpendicular to the general trend of the coast line and the axial inflection of the Coast Ranges and the Sierra Nevada the Great Valley is exposed to "northers" marked with disastrous desiccating influences. The day temperatnre is usually high, increasing proportionally to the duration of this climatic type, but at night frosts are of characteristically frequent occurrence. The winds increase toward the south, being light and variable on the Oregon coast but high gales on the Californian coast. When this type occurs in spring and is accompanied in Southern California by high winds and sandstorms rain is almost certain to follow. In general the breaking up of this type is heralded by frosts of more or less severity.

The most severe and general rains of the region occur in co-ordination with a general climatic disturbance over the whole country. To the eastward there is a series of waves of abnormally high pressure over the eastern guiding planes of the Cordilleran system reaching thence across the Central Valley and the Appalachian system to the Atlantic seaboard and everywhere accompanied by severe storms and intense cold. Upon the Pacific coast in correlation with this eastern disorder the barometer drops very low and exhibits rapid fluctuations with remarkable gradients between the coast and the interior, the rain area overspreads all sections, gales are marked with the greatest violence, the rivers attain their high levels and tend to floods; in general the condition is that of an extensive cyclonic disturbance which, proving unable to scale the Sierra Nevada, is forced to spread out over the entire length of the coast region until it gradually wears out with the restoration of climatic equilibrium beyond the range, or if it does move eastward does so at some extreme point beyond the sphere of observation. In this condition of the weather the rain is precipitated with practical impartiality from Siskiyou to San Diego.

Another rainy condition is found when a diffuse and moderate high exists upon the southwestern coast accompanied by unusually low temperature and apparently unaffected either by the presence or the absence of a faint and shallow low on the northern coast. With this arrangement of climatic factors the isobars are somewhat perpendicular to the coast, a condition almost certain to bring rain, while if these curves of pressure assume a parallelism with the coast line fair weather soon follows. During the prevalence of this condition there are rains upon the Los Angeles country and the Great Valley, and the winds above San Francisco are feeble, except in the rare instances

where the barometer sinks excessively. Should the absolute general pressure fall considerably below the normal, yet retaining the relative high upon the southwestern coast, gales rage in southern California, with occasional storms of thunder and hail. This condition determines very suddenly by the movement of the high up the coast and its obliteration as a distinct feature in its progress.

A condition which leads to rains of local character, yet impartially distributed as to occurrence within geographical limits, is marked by a moderate low continued through a succession of days and below the normal over a large area. The isobars are then diffusely disrupted; they are wavy or inclose several subsidiary lows, occurring over mountain basins with a marked absence of any decided gradients. The winds are variable, the temperature declines, the sky is cloudy, rain comes at intervals, rising under favoring conditions to a gale, which while quite local in character sometimes does considerable damage within its narrow limits.

The dry season shows little variation from beginning to end. Rain is almost entirely absent, and the light showers which sometimes occur on the Washington coast only rarely drop down upon a limited district of the Californian shore. Another feature of the season is the development and persistence of marked intensity of the high in Oregon, accompanied with a corresponding fixity of a slight low area over southern California, creating the characteristic northerly winds which blow down the Great Valley.

Yearly precipitation.—At this point it will be well to examine the chart of annual precipitation upon the two States, California and Nevada, and to discuss its tracings as the general average of the results of the climatic forces before noted and as exercised over wide areas. In the examination and review of the monthly charts it will be more pertinent to discuss the rainfall by natural districts of the region in each of which these constant forces are subject to various local modifiers which widely yet consistently differentiate the results and with even greater prominence are ruled by barometric constants of the month, which it will be necessary to figure over the greater portion of the continent before it can be made clear how the correlation and configuration of the atmospheric mountains and valleys govern the climate of the Pacific coast.

The annual rainfall upon this region may not be dismissed with a few general terms; it offers too many peculiar problems to be lightly considered. On one hand it includes one of the earth's regions of absolute minimum, and on the other it projects far into the region of the greatest precipitation of this country. Nevada, uniform in topography, displays a similar uniformity in its precipitation features. California, of rugged profile, is equally irregular in its rainfall. To follow satisfactorily the distribution of the rain it is necessary to revert to the physical outlines of the country and to hold in mind the precipitating influence of mountain masses.

The State of Nevada lies entirely below the curve of 20 inches annual rainfall. This curve will therefore form a convenient base line to which to refer all other districts for determination of their relative character as arid or watered. It appears upon the heights of the Southern Coast Range, upon the highlands of the Coast Ranges south of San Francisco, branching from the southward to include east and west, the Salinas Valley, upon the foothills of the Sierras on the eastern side of the Great Valley, and similarly on the lower hills which westerly bound the valley of the Sacramento it passes out of the land at San Francisco. Below this line is arid California, which at the same time is wonderfully rich in all operations of husbandry; above it is a land which while better watered is less available for agriculture. As shown on the annual chart the arid region may be noted in a few general areas, the Great Valley, the Salinas Valley, the Southern Coast, the Colorado Desert, and Nevada. The regions of higher precipitation are with considerable precision regions of greater elevation; the greater rainfalls upon extensive summits wherever found, upon the Sierra Nevada, and in a scale of rapid increase with latitude upon the northern coast.

The attention will first be directed to the curves which lie upon the arid region, because it is there that irrigation must be applied, if anywhere, and because the watered region, for the most part unavailable for agricultural purposes, must supply that water of irrigation.

The curve of least rainfall is the curve of 3 inches, which is drawn in a narrow tongue in the extreme southeast of California on that noteworthy valley of the desert whose floor is below the level of the sea. The curve of 5 inches closely follows this curve of least precipitation until it nearly reaches the Colorado River on its eastern limb, then sharply recurving upon itself it reënters the desert to include Daggett and Fort Cady and bends back to the Colorado River below Needles. A second area of 5 inches, not as yet definitely connected with the former though such a connection is indicated, begins upon the desert west of Daggett and narrowly extends northward with definite persistence upon the plateau of 3,000 feet elevation, which forms a characteristic trough in western Nevada and extends far enough to include Carson and Humboldt Lakes. A cusp of the curve of the same weight in the northern Bonneville Valley of the Great Salt Lake enters the Territory for a short distance in the northeast of Nevada at Tecoma. The same system governs the arc of a 10-inch curve which cuts off the northeast corner of the State.

The general Great Basin 10-inch curve enters the region from the eastward between the thirty-seventh and thirty-eighth parallels, closely aligns itself upon the brink of the 5,000-foot plateau to the intersection of the forty-first parallel and the one hundred and fifteenth meridian; thence westerly along the northern rim of the Lahontan Basin, beyond Pyramid Lake, it advances upon the eastern face of the Sierra Nevada, which it follows southerly to its decline, and then, similarly placed upon the eastern face of the Southern Coast Range at the edge of the Colorado Desert, it passes from the Territory and into Baja California. The greater part of the floor of the valley of the San Joaquin, the southern moiety of the Great Valley, is in receipt of less than 10 inches. The limiting curve has a wide sweep along the foothills in all that part of the valley included in the counties of Tulare and Kern; north of Tulare Lake it appears as a strip lying quite east of the river, with its eastern limit just inclosing Visalia, Goshen, Kingsburgh, Selma, Fresno, and Firebaugh's Ferry, recurving at Los Baños. The other appearances of this curve upon the region, though well defined, are unimportant by reason of the small area included. These are a narrow seacoast strip from

Tia Juana to the Peñasquitas Creek, including San Diego; the upper valley of the Santa Ana as determined by the records of Colton and Riverside; and a scanty strip south of the sloughs of the meeting San Joaquin and Sacramento Rivers, determined by the record at Tracy.

In eastern Nevada a narrow loop of 15 inches clings to the north and south valleys of the White Pine Ranges from Pioche to Fort Halleck. The general 15-inch curve of the Great Basin enters upon the northern border at Fort McDermit, sweeps eastward to include Tuscarora, and then swinging sharply back along the upper edge of the Lahontan Basin parallels the 10-inch curve of the same system upon the eastern Sierra face as far as the heights which break away above the Tehachapi Pass. Here, crossing the decadent Sierra Nevada, it enters upon the Great Valley and rapidly seeks the lower contours and comes out upon the level floor of the valley in Fresno County. Thence northward it is the dominating curve of the counties of Merced, Stanislaus, and San Joaquin. Curving westward, a little west of Galt, it incloses the sloughs of Sacramento, Solano, and Contra Costa Counties, and then trails off southerly along the western level of the San Joaquin Valley and begins to climb the slopes at a point west of Tulare Lake, and thus by gradual steps marks the western as well as the eastern wall of the Tehachapi Pass, leaving the intervening breach a passageway through which the San Joaquin dryness unites with the desiccation of the Colorado Desert. From the Tehachapi Pass southward this curve is marked upon the eastern face of the Southern Coast Ranges and with many involutions follows their direction out into peninsular California. The 15-inch curve of the southern coast system appears from the south along the western 1,000-foot contour of the ranges to the valley of the Santa Ana River, where it sweeps around the 10-inch area already drawn there and thence follows the coast to Point Conception. Other appearances of this curve are about the valleys of the Salinas and San Benito and on the floor of the Sacramento Valley, in Colusa and Glenn Counties.

The 20-inch curve has already been broadly outlined as the mark of separation between arid and watered lands. The only addition to its course as there noted is a cusp of the area which appears on the northern line of California, and opens toward the arid lands of eastern Oregon.

The curve of 25 inches crosses the northern boundary of California somewhat west of the middle point. Thence easterly and southeasterly over the counties of Siskiyou, Shasta, Lassen, and Plumas it assumes a position near the crest of the Sierras closely paralleling the 20-inch curve as far as the headwaters of the Kern River. Here it returns northward upon the foothills of the Sierra, gradually seeking lower levels as it advances up the Great Valley to include Red Bluff, whence it returns upon the western wall southerly until it leaves the region through the Golden Gate after having encircled the Sonoma Valley. Disconnected systems of this curve appear as follows: inclosed within areas of higher precipitation, a small 25-inch loop at Ukiah and the Upper Russian River included in a 30-inch area; overlaid upon areas of lower precipitation, on the Southern Coast Range in the vicinity of Julian, where the rain amounts to more than 37 inches, upon the San Bernardino Peak, upon the highlands of Ventura County, upon the mountains in San Luis Obispo County, on the heights of the Coast Range from San Benito to Mount Hamilton, where the precipitation reaches 35 inches. Another area of 25 inches rests upon the southern part of the peninsula of San Francisco, with two foci of great activity on the watershed of the San Lorenzo and Boulder Creek, where 86 inches is measured. Yet another such area covers the hills which part Alameda and Contra Costa Counties and determines the moisture of Oakland, Berkeley, Alameda, and the towns as far as the Niles Cañon.

The 30-inch curve closely follows the Sierra heights in the path noted for the 25-inch curve, but turns northward at the source of Kings River. It, too, finds considerably lower levels as it is drawn up the Great Valley and is under a thousand feet where it recurves at Anderson in Shasta County. Thence it follows southerly the Coast Range almost to San Pablo Bay, projects a narrow northward tongue to include the Sonoma and Russian River Valleys, and passes out to sea by Mount Tamalpais.

The first particular in which the curve of 35 inches materially varies from the next lower is where it crosses the Sierra on a lower altitude but somewhat higher latitude. The consistency is well marked all around the head of the valley which it crosses at Redding, and no deviation from the usual path appears for some distance along this course until after including Lake County it loops around Ukiah and passes southeasterly out of the State at Point Arena. Between this point and Point Boneta is a mountainous coast included in the general 30 inch area but having its own group of isohyetals, which rise to the height of 50 inches and are not conformable to any other system of rainfall curves.

This new path is generally followed by the 40-inch curve crossing the Sierra still further north and passing out to sea north of Point Arena. With the 45-inch curve further changes are introduced into the characteristic path. The passage of the Sierras is accomplished much further north as is shown by the increased flow of the Tuolumne and Stanislaus Rivers, which head thereon. After crossing the valley somewhat north of Redding the curve becomes involved in the valley of the Upper Trinity River and again in Round Valley, but passes out well south of Mendocino.

The 50-inch curve sets somewhat of a new course in entering over the northern boundary, for it runs well into the Klamath Valley to include Orleans, but soon regains the general trend along the Sierras, turning north at the headwaters of the Mokelumne and Cosumnes Rivers. In Nevada and Yuba Counties it recedes from the valley along the two forks of the Yuba River, but soon returns to the prevalent direction of the lower curves, which it follows out with all its involutions, and reaches the sea at the mouth of the Navarro River.

This new course thus instituted in the Klamath Valley is followed by the 55-inch curve which joins the general sweep, except that it can not be traced on the Sierra Nevada further south than Sierra County. After making a partial circuit of Round Valley it swerves from the southern Mendocino path which the four lower curves have followed and, almost reaching the coast on a northwest course, is retracted about the sources of Eel River and thence emerging resumes its northwest course and leaves the land at Trinidad Head. There is thus cut off a segment of coast between Trinidad Head and Mendocino City whose observed isohyetals furnish scope for interesting local study not possible

within the limits of this paper. Thus at Fort Bragg and Westport it is necessary to draw the curve of 45 inches, and by consequence still further inland the 50-inch curve which passed from the land at the mouth of the Navarro River, yet as the distance is but small these lines may be considered as continuous at sea and as re-entering. This arc of the 50-inch curve then is drawn to follow the curve next higher upon the headwaters of Eel River and passes definitely to sea just south of Trinidad Head. The 45-inch curve is continued across the point and emerges at Eureka. Fort Humboldt locates the curve of 40 inches and Humboldt Light the curve of 35 inches, which may be looked upon as continued at sea from the curves of the same value which reach the sea at Point Arena. This is all the more probable by reason of the nonconforming curves of the coast region immediately south which point to some seaward perturbation. Last of all the very tip of this projection at Cape Mendocino locates the curve of 20 inches. Since the 20-inch curve in the general system of the region has definitely emerged at the Golden Gate, this curve and the higher ones necessary to fill the interval may be drawn as mere concentric cusps. In this same region appears the anomalous record of 87 inches at Upper Mattole, which, however, seems well established and reliable.

The curve of 60 inches is the highest one which makes any considerable appearance on the region. It enters from Oregon in the valley of the Klamath and passes out to sea north of Trinidad Head. The greater portion of the curve is a disconnected and closed loop which reaches down the Sierra Nevada as far as Indian Valley in Plumas County, into the Great Valley as far as Delta, and down the Coast Ranges to Mount Yallo Balley. Upon this area appears a precipitation of 90 inches at Berryvale, within the sphere of the Mount Shasta influence. In the extreme northwestern corner of the State curves are sufficiently well indicated as cutting off successively small areas up to 82 inches of annual rain at Crescent City.

From this it will appear that the least rainfall is upon the Colorado Desert in extreme southeastern California and the greatest is correspondingly extreme in the northwest, that Nevada, the Great Valley, and the southern coast are the regions of insufficient rain, that the fall increases progressively with height upon the Sierra Nevada, less distinctly so upon the Coast Ranges, and upon the northern coast the increase is more with latitude than altitude.

DETERMINING CAUSES OF CLIMATE.

Up to this point in the inquiry it has been sufficiently accurate and precise to examine the rainfall as broadly conditioned by two opposite influences, the precipitating value of summits of elevation and the supply of moisture by the wind currents blowing in from the sea. But as soon as the student leaves the annual record of rainfall the inefficiency of these conditions becomes immediately apparent. If they were the only causes the rainfall would be practically continuous during every month in the year.

The most cursory examination of the monthly charts, without a single word of explanation, shows California to have but two seasons, one rainy and one dry, with more diffuse conditions over Nevada. It is thus evident that one or both of these causes is intermittently operative; that it can work only during a few months of each year. It will be interesting to see which it is of these powers that is shut off, and it will be still more interesting to discover how it is shut off.

The Cordilleran influence has been summarily presented in this paper under its proper title and more extensively argued in the similar memoirs on Arizona and New Mexico. It is a power constant, immutable as the mountain masses which condition it; it is ever active. Whatever atmosphere is forced against these permanent guide planes must ascend; it must become cooler; it must become less dense, and the loss of heat and the expansion must rob it of all moisture which it may happen to carry in excess of the point of saturation at that temperature and pressure. This must go on whenever atmosphere meets mountains. It is seen to be active during certain months of the year on the Pacific coast; during certain other months it would seem as though it had no existence.

But how may this be? When the Cordilleran influence should on *a priori* grounds be at its maximum it is found to yield no results. The only explanation possible is that the air thus elevated is too dry to precipitate moisture; that its absolute humidity is so low that when the mountain has cast it up to the greatest height within its chimney of convective influence, when it has reached the lowest temperature, the lowest pressure, and the highest degree of expansion, the humidity is still below the saturation point predicated on those factors, and no precipitation can occur nor even a cloud form, and those who from the parched and baking valleys look toward the shining Sierras know that the white cap is snow not cloud. This influence, then, is permanent; the change is in the moisture of the air. Yet there is equal permanence in the power of dry air passing over leagues of sea to absorb moisture. It is not supposable that this natural force is extinct during certain months of the year and efficient during certain other months; nature does not thus sport with her fixed laws. It is clear that the moist winds and the desiccative mountains do not come together; some cause in nature intervenes to keep them apart during the dry summer of the Pacific slope and the more intermediate region of the Great Basin.

Of what nature, then, may this so powerful force be? To discover that the inquiry must leave more local considerations and examine the climatic constants of the whole country.

Four points are found to be correlated in a mutual influence upon the climate of the continent; three are always apparent, the fourth is sometimes indefinite in either ocean or the regions north and south where no meteorological stations are situated. These four points are two areas of low barometer and similarly two areas of high barometer. Their positions relative to one another and to the earth beneath determine the climatic conditions of any period, be it day, week, month, or year. In one group of positions of these four points the storms have an easy sweep to bring rain across the country; in another group of positions every obstacle is put in the path of storms. Before discussing what these groupings are a word is to be said which shall bring clearly before the mind what a high barometer is and what a low, not for students of meteorology, who know these matters well, but in such popular terms as may convey a fairly accurate idea to those unfamiliar with the physics of the atmosphere.

Over every point of earth stands an air column of uncertain height. The weight of this column of air is registered by the barometer, and from the weight an idea is obtained of the height. A high reading of the barometer at the earth is the surface indication of a high air mass overhead. By grouping these surface indications it is possible to form an idea of the upper surface of the air with high peaks and ridges over the areas of high barometer on the earth, and valleys and depressions corresponding to the areas of low barometer. In effect a barometric high indicates an atmospheric mountain, the steepness of whose slope is exhibited by the close or diffuse assemblage of lines of equal pressure, and the barometric low as surely indicates an atmospheric valley, gorge, or basin according as its sides are steep or easy.

These mountains and valleys direct the flow of atmospheric currents, which always seek the line of least resistance, and therefore must flow in atmospheric depressions. The leeward side of such an air mountain must then be a place of security against the storms, a region of clear weather, and such it is found to be. The general movement of the storms is known to be easterly. If the valleys extend east and west the storm has a free passage and converts none of its force by beating against obstacles, it carries its severity to all parts of its course. But revolve the axes of the atmospheric convolutions through 90°, place the ridges of high elevation in a north and south direction, and therefore athwart the storm track; the storm is held back by the height, it must follow valleys to the north and to the south until it can find a gentle slope over which it may pass on its eastward course, but shorn of much of its power by the attempt to overcome the restraining conditions. This revolution through 90° is an operation which nature performs at apparently regular intervals, impelled by causes which are beyond our comprehension; certain conditions are observed, the efficient agencies are hidden deep in the unfathomed mysteries of cosmic physics. From study of long records of barometric pressure this will plainly appear. By comparison of the mean daily readings of the barometer it is possible to obtain a record of the monthly mean contour of the atmospheric surface. By composition of the means of the months in each of a series of years it is possible to obtain a secular mean which becomes more and more reliable in proportion to the length of the series of the years thus composed. The propriety of this consideration by monthly periods will be seen from the fact that a month is not merely an arbitrary division of time, but is dependent upon the sun's apparent position, which is also a factor in climate. The series of monthly means of barometric pressure will now be examined to discover the correlation of the four determining areas already mentioned, the two highs and the two lows, which usually overlie the United States.

In March the two highs are thus placed, one on the valleys of the Missouri and the Red River of the North, extending northerly to Winnipeg, the other resting on the South Pacific coast or from Cape Mendocino south. As determined by these points the two lows are found, one resting on the extreme northwestern coast, the other drawn upon the southern part of the Great Basin covering most of Nevada and Utah and considerable adjacent areas of Arizona, New Mexico, and the sunset slope of Colorado. April shows the high, which was somewhat narrowly marked in the Missouri Valley the month before, now broadly outlined upon the whole Central Valley, and the Pacific high, strongly marked at the coast line. Between these the lows are marked, one of broad outline upon Montana and its northern neighbors Alberta and Assiniboia, the other narrowly restricted to the southern part of the Great Basin and opening seaward down the Colorado Valley.

This type once assumed is fairly permanent for several succeeding months. Not only is one month similar to that which preceded it, but in each month after the type has been momentarily deranged by the passage of some violent area of low barometer, in other words a storm, the conditioning barometric constants rapidly reassume the arrangement normal to that month. While this type is fairly permanent there yet occur alterations of some of the elements which seem to follow an harmonious low. The high upon the Pacific is of strongly marked persistence upon the extreme continental verge and advances but little inland. The low upon the Great Basin scarcely varies in its characteristic shape and moves but little from its position upon the Colorado Valley and the southern portions of Nevada and Utah.

The harmonic variations of the type are confined to the swinging in and out of the eastern and northern members, and in this it would be seen that the eastern high was the active agent. In April it was found to overlie the Central Valley, with the northern low dipping into Montana. May discloses the high upon the Appalachian heights and its functional low withdrawn quite distinctly into Alberta and Assiniboia. In June the high has swung back upon the Central Valley and the low is found across Montana, North Dakota, and Minnesota; that is to say, somewhat east of its April position. The eastward swing of the high in July carries it still further east than in May—it is found upon the southern Appalachians and the South Atlantic and East Gulf coasts; the low has again gone north and rests upon Assiniboia and Manitoba. The August westward swing of the movable high carries it upon the Central Valley as a pointed range of elevation with easy gradients, and the low is scarcely distinguishable as having reëntered from the north. This marks a definite conclusion of this type.

In the August type there just begins to be perceptible an encroachment of the North Pacific high upon the land. It is scarcely measurable, yet it exists as the precursor of the transitional type which now follows. This begins with less extensive movements of the four elements. The pendulum movement of the eastern high has ceased. It no longer swings eastward, but spreads out upon the Appalachian ranges, and is well marked upon the whole Atlantic coast; the northern low, which was practically obliterated in the smooth August curves, is again marked over Manitoba; the southern low has retracted from the southern Great Basin and appears restricted to the Colorado Valley; the Pacific high definitely cuts the coast line in the direction of the movement which began to appear in August, and now overlies Washington, Oregon, and adjacent areas in California and Idaho.

Thus may be described the September type. That for October is similar, and in it the only movement discernible is a slight drawing together of the two highs. The lows remain as placed for September, one resting in broad outlines

upon Manitoba, the other narrowly confined within the lower valley of the Colorado. The eastern high is drawn north and south over the Mississippi Valley, and the Pacific high has advanced inland to cover more of the area affected in September. It is an expectant poise; the four elements have come to rest; their internal balance is complete; their forces of attraction and repulsion neutralize one another; the situation is such that any efficient force which would avail to move them at all will move them as a unit.

That movement November discloses. The fact of integral movement plainly appears—the causes must be looked for in the great principles of solar physics. The subject opens a wide field for close study. It is so wide that it removes itself from the limited scope of the present inquiry. The climatic constants have been moved in longitude; they have been shoved eastward by 20 degrees of arc. Upon the Pacific coast, to which this examination must be restricted, the effect is precisely similar to that which would have been produced by a revolution through one quadrant. The Pacific high, which began to creep upon the land in August by almost imperceptible movements, now rests upon the Great Basin; it extends over southern Idaho and northwestern Colorado. Its concomitant lows appear north and south upon the Pacific coast, on western Washington and northwestern Oregon, and on southern California, respectively.

From one permanent type the transitional rest has developed a second type equally permanent. The record of the next succeeding months is easily read. The conditions of November endure through December and January; the high persists upon the Great Basin; the low on the Pacific remains permanent in western Washington; the second low on the Pacific has a progressive motion eastward, of slow rate. In February the high and the northern low remain in their typical positions, but the imminence of change appears in the southern Pacific low, which has definitely passed eastward from the coast, and is now sharply marked as of narrow extent upon the lower Colorado Valley.

March conditions then recur and round out the year. The low, which slowly moved in eastward from the Pacific and clung in February at the head of the Gulf of California, has now moved up to a position upon the southern portion of the Great Basin. The eastern high, which has been disregarded during the continuance of the type just vanishing, now moves westward to a position upon the Missouri Valley, and the high of the Great Basin has moved out upon the south Pacific coast.

The relations of these four elements condition these four periods here set forth, two permanent types and two periods of transition. The summer type of a high upon the Pacific coast and another on the Great Valley and two lows between endures from April to August. The winter type, exemplified on the Pacific slope by a high upon the Great Basin and two lows upon the coast, endures from November to March. The transition periods are, respectively, September, October, and March. These periods are, with close persistence, the periods of rain and drought in the region under examination. When the summer type has attained its greatest permanence the drought is most intense; when the winter type is most firmly established the rainfall is at its greatest. The two transitional periods are rainy or dry according as they partake of the character of the type which precedes or which follows them. Thus if during the September and October period there is a frequent assumption of the winter type, the rain comes early; similarly, if winter conditions persist into March, the rainy season is proportionally prolonged.

It will now be in order to examine the monthly charts of precipitation upon California and Nevada, discussing each in the light of the climate types just presented.

September.—For the purpose of securing as an initial point the closest approximation to agreement between the actual conditions of rainfall as noted upon the monthly charts and the theoretical rainfall conditions as predicated in the foregoing discussion, the examination of the serial charts will begin with September, the beginning of the period of transition from the dry summer to the rainy winter type. In this type the eastern high rests upon the Appalachian ranges, the Pacific high has begun to lose that permanent insistence upon the very line of the shore which has marked it for many previous months, and now encroaches upon the land to a considerable extent. Of the pair of intervening lows the northern one rests upon the northern boundary of the United States, sinking over Manitoba; the southern one has drawn down from the Great Basin to the narrow limits of the Colorado Valley. During the intensity of the preceding period of drought there has yet been enough rainfall to warrant the drawing even in July and August of a monthly curve of 1 inch over Puget Sound and the country south as far as the mouth of the Columbia, and including a restricted area of 2 inches upon the extreme northwestern corner of Washington at the mouth of the Strait of Juan de Fuca. In September these areas have extended; the 1-inch curve reaches east of Puget Sound and down the coast as far as the southern boundary of Oregon at the ocean, including an area of 2 inches nearly as great, and well-defined occurrences of 4 and 6 inches at Juan de Fuca. This rain within the area of high barometer is susceptible of explanation on the ground that the permanent character of this high is breaking up. It is, therefore, weaker and more easily affected by the approach of seaward lows; at the poorly defended spot the moisture of the sea finds opportunity to fall upon the land. But, for the present, that breach is but small; the influence of the rains there admitted does not yet reach California.

The September chart of California and Nevada does not contain a single instance of the occurrence of the 1-inch curve capable of co-ordination with the system of the upper coast. The records showing an inch or more are very few. The 5-year record of 0.84 at Crescent City shows that the 1-inch curve falls short of the Californian coast, and the 3-year record of 1.39 at Christmas Prairie near by is to be examined in connection with its valley environment, which will tend to give it more rain than the average of its district at times and less at other times, and just these characteristics appear in the twelve monthly averages of precipitation recorded at that station. The record of 1.19 inches of Berryvale is but for a single year and should therefore be excluded from any consideration of means. Two records occur of a separate type—Meadow Valley, with 1.53 inches as the mean of three Septembers, and Cisco, with 3.42 inches average of 20 years. These are both upon the high Sierra and show that the mountain influence is by no means dormant and that just as soon as the moisture has any chance to drift in upon them from sea they manifest

their efficiency at once. Two remaining records, a 20 years' average of 1.17 inches at Elko and 1.02 inches for the mean of 2 years at Fenelon, are the indications of a difficult problem. The two stations are close together in northeastern Nevada, in the same valley, in fact. Yet they are not conformable to equally valid records in their vicinity and not apparently correlated with any systematic precipitation, while as for local determining influences such must be very obscure as between Elko and Halleck. A third nonconforming record is found in the 1.03 inches mean of 3 years found at Camp Winfield Scott, also a station in northern Nevada but little south of Fort McDermit.

The Great Valley shows a slight difference between its two members, the records ranging a little higher along the Sacramento than on the plains of the San Joaquin. The southern coast, the Colorado Desert, and western Nevada show very low records, in most cases less than one-tenth of an inch. Eastern Nevada, on the strength of 6 stations, the longest of which covers 4 years of observations, must be considered as in receipt of one-half inch of rain during the month, which plainly appears as the remnant of the *temporales* or summer rains of Arizona and New Mexico, which in August have prolonged their diffuse influence thus far north and west from the mountain regions where their greatest intensity has been manifested. This may be connected in some way, not yet clear, with the anomalous precipitation of Elko and Fenelon. The records for the principal cities are as follows: San Francisco, 0.16; Oakland, 0.26; Los Angeles, 0.04; Sacramento, 0.14; Stockton, 0.07; San Diego, 0.07; National City, 0.29; San José, 0.12.

October.—Proceeding from this period of general drought, the second month of the transitional period of poise may be expected to present a certain proportion of the conditions of the type about to succeed. The eastern high, which has been the moving member of the summer type, has come definitely to rest and the Pacific high has become movable, and in general is drawn further upon the land in Idaho, Washington, and Oregon. The lows remain as before, but the slope upward toward the two highs has become much less steep. The instability of the Pacific high conditions more rain upon the northern coast because the moist air from sea has more opportunities to reach the land, and by the feeble resistance is less rapidly beaten off again. The curve of an inch extends from the northern boundary along the central meridian of Washington and Oregon: includes the whole width of California north of the 40th parallel, and is carried conspicuously down the coast. The curve of 2 inches paralleling the lower one with no great interval follows the coast line almost to San Francisco. The curve of 4 inches appears on the coast region of Washington and Oregon except for a narrow gap below which it reappears on the shore line between Trinidad Head and Eureka. The whole immediate coast of the northwest from Koos Bay to the Strait of Juan de Fuca receives 6 inches. In connection with these conditions the chart of California and Nevada during the month of October shows some interesting features which will appear in the closer examination given it in the present memoir.

The 1-inch curve displays a tendency to assume a position upon the area shown by the annual chart to be the region of maximum precipitation, and this tendency is well developed though somewhat interrupted. The continuous curve of this weight marks the southern limit of this rain area, as follows: Entering Nevada slightly west of its northeast corner, it is drawn irregularly west across the State and into Lassen County, in California; thence emerging southeastward into Nevada it narrowly includes Reno and the basin of Lake Tahoe and passes definitely into California, leaving Mono Lake upon its dry or eastern side; crossing the Sierras in the country of the Yosemite Valley it rapidly descends westward and appears on the floor of the Great Valley a little to the north of Stockton; thence northerly on the eastern side of the valley it clings closely to the 100 foot level on which it crosses the Sacramento Valley, near Princeton, and descends southerly on the same level toward the bay, along the north shore of which it is drawn with loops into the Napa and Sonoma Valleys, leaving their floors as well as San Pablo Bay on its dry side, and thus approaches the Golden Gate from the north and on the eastern slope of Tamalpais. From Sausalito it crosses the bay eastward to the Contra Costa and, looping over the hills and the Alameda Valley to the Arroyo Hondo and Suñol Glen, returns westward at Dumbarton Point across the bay to San Mateo County. After including on its dry side a small area of the leeward side of San Francisco peninsula, it returns eastward across the bay to include Milpitas and narrowly exclude the *Alameda*, between Santa Clara and San Jose; thence excluding Menlo Park it runs upon the Santa Clara Valley to the heights east of the Salinas, and there recurves northward over the bay of Monterey, to pass from the coast at Pescadero. Disjointed areas of this amount of rainfall appear upon the region.

The White Pine country in eastern Nevada is embraced within a curve of 1-inch which is drawn about Hamilton, Eureka, and Forts Ruby and Halleck. The southern portion of the Coast Ranges receives an inch of rain all the way from the Tehachapi Pass northward almost to Monterey on the immediate coast, and to Mount Hamilton on the valley side, leaving between this area and the southern face of the general equivalent area a narrow gap. Upon this area is superimposed a 2 inch curve which includes Templeton and the headwaters of the Salinas in its northern reach, and southerly covers the Sierra de San Rafael and the sources of the Cuyama River, exhibiting the one-year record of 19.85 at Santa Margarita. A small area of 1-inch is authorized in central Los Angeles by the record at South Side. The coast portion of the counties of Los Angeles and Orange is included within a seaward loop of 1-inch, which enters the region through Santa Monica and leaves below Santa Ana.

A closed loop of 2 inches is indicated on the Coast Ranges from Point Arena toward Tamalpais, rising to the height of 3 inches at Fort Ross. A more diffuse area of the same weight is drawn over Napa, Lake, and western Yolo counties with a focus of a higher precipitation at Ramsey's, which authorizes the drawing of a 3 inch curve within. The 2-inch curve of greatest continuity enters California at the northwest corner, leaving Camp Lincoln on the minus side, and immediately swings into position upon the areas of maximum annual precipitation, passing eastward north of Mount Shasta and southward east of that peak, including as its limit toward the east, Indian Valley and Summit, before recurving on the high Sierras at the sources of the Mokelumne River. Thence seeking lower levels it crosses the Upper Sacramento Valley somewhat north of Red Bluff. Upon the Coast Ranges it is drawn about Round Valley and passes out to sea immediately north of Cape Mendocino.

The 2-inch curve appears upon this area in four branches. The most distant is a diffuse area bounded westerly by Iowa City and Shingle Springs and easterly by the high level of the mountains. The second is a restrictively local area authorized by a four-year record of 3.79 at Anderson. The third is a general area upon the Coast Range section of the region of maximum annual precipitation upon which there are to be inscribed two local 4-inch areas at Berryvale and Delta. The fourth appearance of the curve is in direct continuation of the typical system of the coast; it is drawn from north of Crescent City closely parallel to the coast to include Arcata, Eureka, and Humboldt. The curve of 4 inches most closely accord though emerging north of Humboldt Bay, for the parallel curve of 5 inches, the maximum for the month, is definitely fixed upon the shore by the records of Crescent City and Fort Ter Wah, a short distance up the Klamath River. The records for the principal cities are as follows: San Francisco, 0.98; Oakland, 1.60; Los Angeles, 0.82; Sacramento, 0.79; Stockton, 0.54; San Diego, 0.31; San Jose, 0.80.

November. With this month the winter type is definitely assumed over the whole United States. The high which has slowly crept in from the northwest seaboard now dominates the entire Great Basin with a general barometric slope of easy gradients toward the Atlantic coast. Upon its Pacific face the slope is much more steep toward the slightly distinct lows which rest upon the extreme northwest and the extreme southwest. The barrier which for the summer months has kept out the pelagic lows has now been forced back and the rain comes in all along the line and the rainy season may be said to have fairly begun. The characteristic system of precipitation on the Pacific slope as a whole shows the entire coast to be in receipt of 1 inch, which area on its dry side is bounded by the Southern Coast Range and the Sierra ridge in California as far north as Owen's Lake, thence along the California and Nevada boundary line to cover Idaho. The 2-inch curve covers the coast south of San Francisco and then becomes broad enough to include the width of California and the western halves of Oregon and Washington. The 4-inch area nearly covers northern California, the Willamette Valley and the Puget Sound region. The 6 and 8 inch curves are strong upon the northern Coast Ranges and the upper coasts. As forming a part of this system the November isohyetals of California and Nevada are to be studied more closely.

The area of less than 1 inch of rain comprises all but a small portion of Nevada, adjacent California east of the Sierras, the Great Valley south of Tulare Lake and the Colorado desert. The 1-inch curve is drawn as entering the region from the north across the boundary line in the Quinn River Valley of Nevada. Thence, running southwesterly to Honey Lake, it follows down the State line, swinging out to include Lake Tahoe on its humid side; recurring once more to the course of the State boundary it passes decisively into California through southern Mono County and maintains a position upon the eastern face of the Sierras to the Tehachapi Pass. Here it recurves upon the western face of the mountain and rapidly seeks the low level of the valley which it crosses at the northern margin of Tulare Lake and in a general upward sweep upon the valley face of the Coast Ranges soon reappears over the Tehachapi Pass, but now on its western height. From this point it follows the desert side of the southern Coast Ranges to the more moderate contours of San Bernardino Peak on its southeastern prolongation, which it crosses to assume a similar position upon the other member of the system. The slight recorded amount of rain at Point Conception exhibits a trace of a peculiar condition of precipitation upon headlands which is even more prominently shown at Cape Mendocino.

The 2-inch curve first appears on the northern boundary east of Fort Bidwell and below Honey Lake; parallels the lower curve until it crosses the range at the head waters of Kern River. Slowly attaining lower levels on its northward course it crosses the central portion of the Great Valley, including Sacramento as its northern limit, and upon that level plain runs about San Pablo Bay on its north and west sides, looping in over Oakland and Alameda, on the San Francisco peninsula close to its bay shore, crossing San Francisco Bay to include Newark, San José, and New Almaden, and thence passing out to sea on the north shore of the Bay of Monterey. The disconnected areas of 2 inches are here presented in their order from the south. It will be seen that while the intervals are well established, they are yet so narrow as to scarcely interrupt the continuity of the system. From Baja California a loop reaches up the southern Coast Ranges to the southern line of San Bernardino County and is bounded westerly by the 2,000-foot contour. A smaller area is found on the San Bernardino Peak reaching southerly to include Banning and Beaumont. Over the counties of Santa Barbara, Ventura, and Los Angeles a third 2-inch area is drawn which includes close to the coast a narrow 3-inch area from Santa Monica to San Buenaventura. A far more considerable area exists upon the Coast Ranges on each of the members as far as Monterey along the coast and Mount Hamilton on the valley wall. Upon the Santa Lucia mountains of this system is found an area of 3 inches. A series of stations upon the central level of the Sacramento Valley, all of which amount to more than 1 inch and less than 2, condition the drawing of a bounding curve. Upon the general 2-inch area a region of far greater precipitation is found upon the Santa Cruz Mountains. Here the rise in the amount runs rapidly up to 10.32 at Boulder Creek.

The curve of 3 inches enters California north of Yreka, and may be drawn sharply across Siskiyou, Shasta, and Lassen Counties to include Susanville, which it joins the southern sweep of the system. It crosses the Sierra at the head of the Kaweah River; does not reach the valley until Redding; crosses westward just north of Tehama; returns upon the western side to include Winters, whence it is drawn in an extending loop about the Vaca Valley, and then high above the Napa and Russian River Valleys on their eastern wall it recurves for a short southerly stretch below Ukiah; passes seaward at Point Arena; dips in again to include Fort Bragg; cuts off upon its dry side the point of Cape Mendocino, and finally passes out. The only disconnected branch of this curve which has not been commented upon is found on the coast border of Marin and Sonoma Counties from Ballenas Bay to the mouth of the Walalla River, a region of anomalous precipitation.

The 4-inch curve entering the region from the north at the one hundred and twenty-third meridian includes Scott Valley and Dunsmuir and joins the common sweep down the Sierras which it crosses at the source of the San

Joaquin. On moderate levels it includes the Sacramento as far as Redding and returns south upon its western wall as far as the Capay Valley; thence it moves toward the coast, which it narrowly skirts in Mendocino, and passes out to sea just north of Humboldt Bay.

The curve of 5 inches is immediately concentric within the lower curve for the greater portion of its length. It crosses the Sierra at the Yosemite Valley and returns toward the heights in a narrow loop closely confined to Bear Valley, which it penetrates as far as Emigrant Gap.

The curve of 6 inches is parallel with the 5-inch curve, crosses the Sierra in Nevada County, the Great Valley below Delta, the coast range at Lake County, and returning northward goes out to sea over Trinidad Head. The flow of the streams is argument for the provisional drawing of a curve of this weight upon the heights from El Dorado to Tuolumne Counties. For the like reason there may be provisionally indicated 7 and 8 inch curves in Plumas and Lassen Counties.

The highest curve drawn upon the distinctive mountain area of greatest precipitation is that of 7 inches, which yet reaches but a short distance down upon the Sierra. More prominently displayed on the Coast Ranges it leaves the coast at the mouth of Redwood Creek. The higher curves are all drawn as entering from the northern boundary close to the seaboard, cohering more or less closely to the valley of the Klamath River, and running out upon the ocean near its mouth. Crescent City conditions a 10-inch curve upon its landward side, and the maximum record of 12.71 is found at Fort Ter Wah.

The records for the principal cities are as follows: San Francisco, 2.87; Oakland, 2.88; Los Angeles, 1.71; Sacramento, 2.14; Stockton, 1.27; San Diego, 1.05 (National City, 1.66); San José, 1.57.

December.—The typical winter arrangement of the climatic constants has now become permanent. Its force approaches its greatest intensity. The high is most distinct upon the Great Basin. The low is general on the Pacific shore, most strongly marked in the Puget Sound country and in southern California, where it differs from its condition of the previous month by displaying greater breadth upon the southern boundary, extending well across Arizona. The rainfall upon the Pacific slope, as compared with November conditions, has undergone a slight loss of intensity upon the Oregon shore, has gained force over California, and the area affected has been largely extended eastward except for a drier area in Nevada and the Colorado Desert. The 1-inch area includes, with this exception, all the region west of the eastern lines of Arizona and Utah and the median line of Idaho. The 2-inch area includes Washington, the western half of Oregon, all of northern California, and the Coast Ranges from Monterey south. An included area of this value appears upon central Arizona. Four-inch areas appear on the southern coast from San Diego to Los Angeles; and from Monterey over much of northern California, narrowly along the Oregon coast and comprehensively over half of Washington. Six-inch curves are drawn at Los Angeles, upon the Sacramento Valley, and from Point Arena narrowly up the northern coast; 8 inches appear on the Washington coast line. As a portion of this system of precipitation the rainfall of Nevada and California must be studied.

In December the dominant curve of agricultural California is that of 3 inches. It appears upon the northern boundary in a shallow arc drawn about the Klamath lakes. Its consistent entrance is made in northwestern Nevada, whence it follows the customary path, crossing the Sierra where Kern River heads. It reaches the plain of the San Joaquin near Fresno and extends north a little beyond Sacramento. Recurving southward it crosses the head of the Suisun Bay and by the flanks of Monte Diablo it rises on the Alameda County hills to include Livermore. Thence on the eastern face of the Coast Ranges it passes south above the Tehachapi Pass and clings to the east face of San Bernardino Peak and the southern Coast Ranges, which it crosses just south of Julian and thus attains a position upon the coast. Its course is now northwest; it encircles the rich Los Angeles Valleys to Colton and Riverside and passes out to sea by Santa Monica, but its position is indicated in close parallelism with the coast, for it cuts in upon Point Conception. Its disconnected appearances are as a loop in the Sacramento Valley from Williams to Princeton, a narrow area upon the upper Salinas below Paso Robles, and another inclosing the 2-inch area already drawn on the lower course of that river below Soledad, a closed curve on the San Benito at Hollister, and a small intersection of the extremity of Cape Mendocino.

The region of less than 1 inch of fall is shown upon the Colorado Desert, and northward upon the depression of the 3,000-foot contour and the former Lahontan basin on which it gives. East of this and northward as well lies an area of an inch of rain. Upon this in eastern Nevada are indicated curves of 2 and 3 inches. The northeastern part of the State is included within a 2-inch curve bounded on the south by the Humboldt Valley. The Great Valley south of Tulare Lake shows an area upon which the precipitation is less than an inch.

The general 2-inch curve enters Nevada through the Quinn River Valley, enters California east of Owen's Lake, and crosses the Sierra on the northern side of the Tehachapi Pass. In its northern course it seeks with great rapidity the bottom of the San Joaquin Valley, reaching as far as Modesto, whence it returns upon the western wall to a position on the south side of the Tehachapi Pass. From this point it follows the eastern face of the southern Coast Ranges, and passes into Baja California. The other appearances of this curve are found at the very end of Point Conception and in a narrow loop upon the lower Salinas.

With the 4-inch curve the isohyetals assume their entering path about the Klamath Valley and their continuation down the Sierra. This curve returns northward at the headwaters of Poso Creek, descends to the floor of the Great Valley in Fresno County, extends on its eastern side to Tehama, and there turns south on the western side. At Vallejo it crosses to the Contra Costa side of San Pablo Bay, and, including Oakland and San Francisco on its west side, crosses the San Bruno mountains and so out to sea. The curve reappears: twice it is briefly drawn on the north coast, intersecting a headland in each case, Point Arena and Cape Mendocino; it characterizes the Coast Ranges below San Francisco. In this system it appears first as an ellipse whose foci are approximately Monte Diablo and Mission Peak and concentric within it is another oval of 5 inches; the area thus affected drains into the Alameda through the

Tassojara, the Arroyo Mocho, the Arroyo Valle, the Arroyo Hondo, the result appears on the *balsas* of Pleasanton and the alluvial plain between Niles and Alvarado. As a more general area the curve may be traced from Santa Cruz along the sea and up to San Mateo, thence inclosing the Santa Clara Valley and rounding the Smith Creek side of Mount Hamilton it follows the 3-inch curve down the Great Valley and along the San Bernardino range to include Pomona, San Gabriel, Colegrove, and that region, whence it bears westerly along the coast to include San Louis Obispo and thence northerly to Jolon; looping southward to exclude the Salinas Valley it returns toward the north from Templeton and through Pajaro seeks Santa Cruz. It also appears encircling San Bernardino Peak. The usual curves of higher precipitation continue to be indicated for the region from Felton to Dougherty's.

The curves of 5, 6, 7, and 8 inches all enter from the north close together near Scott's Valley and maintain this close association to their passage of the Sierra, which is accomplished over the following river sources in order from the south—Kaweah, San Joaquin, Merced, and Tuolumne. By their rapid descent they soon come together only to undergo a second dispersion in Placer County, where the 5 and 6 inch curves continue smoothly but the 7 and 8 inch curves are narrowly deflected upon the Sierras by the Bear Valley as high up as Emigrant Gap and Cisco, respectively. Again assembling as a parallel system these curves cross the Great Valley near Red Bluff, Anderson, Redding, and the Pitt River, respectively. At this point the 8-inch curve swings westward to encircle the upper valley of the Trinity River and within this area closed curves of 7 and 6 inches are drawn around Weaverville. Returning to association with the lower curves all four are drawn southerly upon the eastern face of the Coast Ranges to different elevations on the Vaca Valley. From this point the 5-inch curve follows the flat land north of San Pablo Bay and on its west side crosses over to include San Francisco and thence to sea. The curves of 6, 7, and 8 inches are strongly looped over the Napa and Russian River valleys, less distinctly so over the Sonoma Valley, and pass out to sea between Sausalito and Ballenas Bay on the Marin shore. These curves all reappear in short arcs upon Point Arena and again upon Cape Mendocino, where the 7 and 8 inch curves are drawn inshore and north of Humboldt Bay.

The 9 and 10 inch curves enter together west of the southerly reach of the Klamath River, and before joining the Sierra assemblage leave Orleans and Walla Walla Creek upon their drier side. Upon the Sierra the 9-inch curve is found to reach as far as the headwaters of the Mokelumne, while the 10-inch curve is continuous only as far as the upper course of the Yuba, reappearing, however, below the constriction in Bear Valley as a closed curve upon the heights from Placer to Tuolumne County, containing an 11-inch area in Placer County. The two curves reassembling on the eastern wall of the Great Valley closely follow the 8-inch curve in Trinity County and through its path as far as the head of the valley of the Russian River, where they break away and pass seaward just south of Mendocino City, but immediately return to the ocean face of the ranges and do not finally leave the region until well north of Trinidad Head. An arc of the 9-inch curve is broadly drawn upon the region of distinctly anomalous precipitation on the Marin coast.

The systematic curves from 11 to 17 inches follow the shorter but equally characteristic path in Del Norte County, the maximum curve being determined by the record of 17.97 inches, average of five Decembers at Crescent City. Upon the mountain region of greatest precipitation curves in excess of 10 inches appear as follows: three of 11 inches so closely associated as almost to warrant the drawing of a continuous curve to include the whole area, one on the Sierras in Plumas and Lassen Counties, one in Shasta and Siskiyou, and the third in Trinity, Tehama, and Mendocino Counties; upon the Shasta area a 12-inch curve appears of nearly equal dimensions, and the flow of the south branch of the Trinity and Eel River is authority for the provisional drawing of a curve of the same weight on the mountains of the western boundary of Tehama County.

The principal cities offer interesting comparison of their December records:

San Francisco	5.32
Oakland	4.63
Los Angeles	3.84
Sacramento	4.71
Stockton	2.80
San Diego	2.13
San José	2.85

January.—The winter type of the barometric constants is firmly established, and so is the type of the rains upon the Pacific coast from San Diego to extreme Washington. The high dominates the great basin, with easy curves eastward but steeply contoured on its Pacific face. The oceanic low rests upon the coast, being deeper toward the north. The 1-inch curve of precipitation covers all of California but the Colorado Desert, northern and western Nevada, Oregon, Washington, Idaho, and Montana. The curve of 2 inches is narrowly colimital, except that it does not penetrate the continent deeper than Idaho. The curves of higher value are drawn in strips along the coast line west of the Sierra Nevada and Cascade Ranges.

A more minute inspection of the California and Nevada precipitation chart for January will show the development of this general system over the region, and at the outset it is worthy of remark that no curve of greater weight has been introduced in the transition from December to January, but the lower curves cover greater areas; and particularly is this true of the Great Valley and the southern counties, where these rains condition agricultural success in the summer.

The area in receipt of less than 1 inch of rain includes the Colorado Desert, extends up the 3,000-foot trough in Nevada to the Humboldt Valley which it follows to Palisade, reappears in the same valley between Elko and Halleck, and in the beginning of the Bonneville basin at Tecoma and Toana opening into Utah.

As bounding this drier area the 1-inch curve of the Arizona rains faces the region along the Colorado River, enters the 5,000-foot plateau of east and central Nevada as far as the southern edge of the Humboldt Valley, where it meets the 1-inch curve of the northern system and struggles to merge across the characteristic dryness of that valley. A 2-inch curve appears upon the White Pine range at Hamilton. The 1-inch curve enters northern Nevada from Utah and follows the north edge of the Humboldt Valley westward, including Pyramid Lake and Lake Tahoe on its wet side; thence at the back of the Sierras, including Mono Lake and to the Tehachapi Pass, which it does not enter, but at the back of the Southern Coast Ranges and on the very edge of the desert passes down into peninsular California. A curve of 1 inch is drawn upon the valley south of Tulare Lake, inclosing an area in receipt of less than that amount, which, however, is barred from connection with the dry desert southeast by the higher records in the pass.

The curve of 2 inches enters northeastern Nevada from the north, follows the lower curve westward and down the Sierras, including Pyramid Lake, Lake Tahoe, and Mono Lake. Through the Tehachapi Pass it enters the Great Valley, up which it stretches as far as Tracy and Lathrop, becoming thus the normal maximum of the month in all the San Joaquin country. Returning south from Tracy it runs through the Tehachapi Pass once more and parallels the lower curve out to the southward. A strictly coastwise curve of this weight enters San Diego Bay over Coronado Beach, conditioning an excess of rain at National City over San Diego. Drawn close to the coast it leaves Orange County on its dry side and emerges between San Pedro and Drum Barracks. Another curve of the same value is drawn about the upper valley of the Santa Ana, including Colton and Riverside. The coastwise member re-enters just west of Point Conception, follows the coast northward and passes out above Guadeloupe, in Santa Barbara County. A loop of this curve surrounds an area in the lower Salinas Valley determined by the lower records of Soledad and Chualar.

A small arc of the 3-inch curve dips down into northern Nevada and a similar arc covers the Klamath Lake country in northern California. The systematic curve enters from the north just east of the Californian boundary and follows the path of the 2-inch curve by which it is drawn through the Tehachapi Pass. By a somewhat long slope it reaches the agricultural level of the Great Valley and continues almost to Sacramento. Thence it returns southward over a circuitous course, across Suisun Bay, down the Contra Costa hills to Mission Peak, across the head of the bay of San Francisco to Menlo Park, inclosing the fruitful Santa Clara Valley as far as Gilroy, whence by way of the north slope of Mount Hamilton it reaches its path on the western wall of the Great Valley, which carries it out through the Tehachapi Pass. Thence by way of Newhall it runs out upon the Santa Barbara Channel, enters the coast line east of Point Conception and passes out in San Luis Obispo County. A similar curve enters from the south on the seaward face of the ranges behind San Diego and continues close to the coast as far as the heights which look down upon Anaheim and the Santa Ana Valley, recurving southward to inclose the 2-inch curve around Riverside, it passes upon the San Bernardino Peak and out of the country on the desert face of the ranges. A closed curve shows the vicinity of Los Angeles from Pomona to San Gabriel to receive more than 3 inches of rain. A loop on the Salinas Valley from Salinas to San Miguel is conditioned by the 2-inch records of the immediate valley. From Sacramento to Tehama and close to the river on either side is drawn a similar loop about an area whose precipitation falls a little short of 3 inches. Another loop of small extent appears upon San Pablo Bay and its Contra Costa and Sonoma shores. The last occurrence of this curve is at Cape Mendocino, which is characteristically a region of anomalous precipitation.

The 4-inch curve appears in northern California upon the lakes of Modoc and Siskiyou counties, in northern Nevada at Fort Winfield Scott. The continuous curve of the system enters the region on the eastern boundary line of California and soon assumes the characteristic path down the Sierras which it follows to the headwaters of Kern River. It includes the Great Valley as far as Red Bluff, thence south on the west edge of the valley floor to Woodland with a loop about the Capay Valley, thence south to Elmira looping the Vaca Valley; thence drawn around San Pablo Bay it crosses to the Contra Costa returning over the mountains at Niles and across to the San Francisco peninsula, thence down the west side of the Santa Clara Valley, over the mouth of the San Benito and Salinas Valleys and out at the southern point of the bay of Monterey. Upon the Southern Coast Ranges the curve is plainly drawn north toward the Santa Ana Valley, including a 5-inch area, and upon San Bernardino Peak is provisionally indicated by the river flow. In Santa Barbara and San Luis Obispo Counties an area of this precipitation is drawn from the Sierra San Rafael northward almost to the Salinas Valley. A curve of this weight appears upon the coast north of Santa Cruz. A loop includes the mountains from Mount Hamilton to Santa Ana Peak.

The curves of 5, 6, 7, 8, and 9 inches are practically one in their entrance through the upper valley of the Klamath River, in their southern path down the Sierra, in their northern course up the Great Valley and in a less degree in their southern course west of the valley. The points where distinctions are drawn are these, the place where the Sierra is crossed, the place of crossing the Great Valley, and the appearance of the curves in the valleys which open upon San Francisco Bay. As shown by the flow of the several rivers which head upon the Sierras and by the records of stations in the northern Sacramento Valley these curves are thus established as to these two points: the 5-inch curve at the head of Poso Creek and at Red Bluff, the 6-inch curve at the source of Tule River and at Redding, the 7-inch at the watershed of the Kaweah and north of Redding, the 8-inch on the ranges which feed the San Joaquin and north of Redding, the 9-inch at the headwaters of the Tuolumne and north of Redding. The curves of 8 and 9 inches include beside the Upper Sacramento a considerable area in Trinity County about Weaverville. Reassembling west of the Great Valley these curves need no separate examination except as to the paths which they follow in leaving the valley. The 5-inch curve extends southward to Vacaville, returns in a loop about the orchard land of the Vaca Valley, passes along the north shore of San Pablo Bay, encircles Oakland, crosses to the peninsula of San Francisco and by the San Bruno Mountains passes down the ranges and out in the bay of Monterey. The 6-inch curve

extends southerly to Winters, loops the Vaca Valley and a portion of the Sonoma Valley and passes out to sea over Mount Tamalpais. The curve of 7 inches drawn higher upon the ranges avoids the Napa Valley but loops well into the vineyard region of the Sonoma Valley and out to sea in Marin County with a reappearance on the Mendocino coast from Point Arena to Mendocino City and again at Cape Mendocino. The 8-inch curve from Trinity is broadly drawn down the Coast Ranges and out of the region south of Point Reyes, reappearing however on the Mendocino coast and at Cape Mendocino as far as Humboldt Bay. The 9 inch curve appears on the Coast Ranges as far south as Cloverdale from which it returns about Round Valley and thence along the coast north of Humboldt Bay. An arc of this curve containing a 10-inch area is to be drawn about Fort Ross.

The curves from 10 to 17 inches are all distinctly drawn upon the northwestern coast. Additional areas of 10 inches are found in Plumas and Lassen Counties and in Trinity, Humboldt, and Mendocino Counties.

The varying rainfalls of the cities are here presented:

San Francisco	5.10
Oakland	5.05
Los Angeles	4.08
Sacramento	3.78
Stockton	2.46
San Diego	1.66
(National City	2.36)
San José	2.53

February.—This is the last month of permanency of the climatic type of winter; the high still remains fast upon the Great Basin and the northwestern low still opens toward the great atmospheric depression toward Sitka; the southern low has left the coast and is drawn narrowly upon the lower valley of the Colorado. The rain areas upon the coast show a considerable diminution in intensity which is most plainly apparent in the higher curves, and slight difference has yet begun to appear upon the farming, fruit, and vine lands.

The area where less than 1 inch of rain falls includes the Colorado Desert, southern, western, and northern Nevada and western Kern and Tulare Counties south of Tulare Lake.

The 1-inch curve of the Arizona and Utah rains is drawn upon eastern and central Nevada north to Halleck in the Humboldt Valley, including a 2 inch area in the White Pine country.

The 1-inch curve of the general system enters east of Fort McDermit, runs southwestward into California excluding Honey Lake upon its dry side, thence on the western limit of the desert it passes into Baja California. A curve of the same weight appears twice in the San Joaquin Valley: at its southern end about the drier area just mentioned south of Tulare Lake; the second on either side the river between Berenda and Modesto.

The curve of 2 inches comes in upon the east line of California and follows the eastern face of the Sierra as far as the headwaters of the Kern River where it enters upon the Great Valley and extends almost to Sacramento, whence, crossing the sloughs of the San Joaquin, it passes south out of the Tehachapi Pass and back of all ranges into Lower California. The coastwise appearance of this curve reaches from the Mexican boundary as far north as Hueneme. A loop of 2 inches incloses an area of less rain in the Santa Ana Valley including Riverside. On the lower Salinas Valley is a similar loop about Chualar and Soledad. Still another is found in the Sacramento Valley from below Williams to Orland and Fruto. The list is completed by mention of the 2 inch arc which cuts Cape Mendocino.

The higher curves now break apart and this may be considered as affecting two distinct areas. These are respectively the ranges of the southern coast and the Coast Ranges northward to the Golden Gate, and the heights of the Sierra Nevada with the Coast Ranges north of Marin County. Of these the southern area will be examined first.

The 3-inch curve appears from the south behind San Diego and extends along the hills into Orange County, and then deeply reëntering the mountains to the south of Murrietta it returns northward to San Gorgonio and then recurves above the desert into Mexican territory. Within the area thus described concentric curves are inscribed up to 8 inches on the strength of the record of 8.2[illegible] at Julian. But narrowly separated from this system the 3-inch curve of the Coast Ranges may be traced along the southern face of the San Bernardino Range, out upon the Santa Barbara Channel, up the Santa Lucia Mountain system on their western face and south along their eastern sides as far as Paso Robles, thence north, leaving the San Benito and Salinas Valleys on its dry side, including the Santa Cruz Mountains, passing south of the Santa Clara Valley and by way of Mount Hamilton out upon the western wall of the Great Valley and through the Tehachapi Pass to San Bernardino Peak. At the extreme limits of this area appear higher curves; right and left of the Santa Ana River are narrow areas of 4 inches, and the Santa Cruz Mountains show a record of more than 6 inches at Boulder Creek.

Upon the northern system the 3-inch curve enters west of Fort Bidwell, turns upon the Sierra at the source of Poso Creek, crosses the Great Valley at [illegible], runs south as far as Denverton, follows the north shore of San Pablo Bay with loops into the Napa and Sonoma Valleys and passes out to sea north of Mount Tamalpais. A second appearance of the curve is found on the northern coast from Westport to Cape Mendocino.

The curves of 4, 5, and 6 inches come into the region on the southerly flow of Klamath River, and all pass south of Orleans. Here their system is joined by the curve of 7 inches, which comes in from the northern extremity of the coast. The four curves are drawn together upon the characteristic Sierra track, and turn north into the Great Valley through regions which have been mentioned in detail in the account of preceding months. The curves of 4 and 5 inches cross the Sacramento a little south and a little north of Redding, respectively: the curves of 6 and 7 inches are similarly situated with respect to Delta, and these two broadly sweep into Trinity County before joining the others down the valley. The 4 inch curve runs south as far as Napa, bends about the Sonoma Valley and turns to sea

at Tomales Bay, reappearing at Westport and Cape Mendocino. The 5-inch curve while reaching well into the Napa Valley retracts about both the Sonoma and Russian River Valleys, down the west side of which it passes and out to sea at Bodega Head, reappearing on the coast from Mendocino to Ferndale. The 6-inch curve follows the curve of 5 inches almost to the sea, but thence is drawn along the Mendocino shore and passes out to the southward of Humboldt Bay. The curve of 7 inches does not vary from this path, except that it excludes Round Valley and emerges north of Humboldt Bay.

Areas of 8 and 9 inches are drawn upon the northwest coast, and again on the high Sierras from Placer to El Dorado Counties.

The rainfall recorded at the principal cities is as follows:

San Francisco	3.60
Oakland	3.28
Los Angeles	3.96
Sacramento	2.89
Stockton	2.33
San Diego	2.00
San José	2.42

March.—This is the month in which occurs the change from the climatic type of winter to that of summer; the average exhibited is a combination of each type. The high has moved seaward from the Great Basin and now rests upon the southern California coast, and the low which in February was found detached from the coast and resting on the lower Colorado Valley has now expanded upon the Great Basin. The northwestern low still remains sharply drawn on Washington and holds the channel open for the entrance of the rain. The general system of the Pacific coast precipitation displays a tendency to form disconnected groups, and this tendency is particularly displayed in the higher curves. As a portion of this system the rains of California and Nevada exhibit the same individuality.

The area upon which rain falls to the extent of less than 1 inch remains practically unchanged since February, with the exception that the small area on the lower San Joaquin has been obliterated.

The 1-inch curve drawn in from Utah covers eastern and central Nevada with a 2-inch inclusion at Fort Halleck. The curve of equal weight of the general system enters in northeastern Nevada, traces west the north rim of the Lahontan basin and runs back of all the ranges into Baja California. Its only appearances elsewhere are in Kern County bounding the area of less precipitation and a short arc on San Diego.

The 2-inch curve enters west of Fort McDermit and runs down the eastern face of the Sierra Nevada to the Tehachapi Pass where it penetrates the Great Valley and extends as far north as Stockton, returning thence on the west floor of the valley it passes south through Tehachapi and follows the 1-inch curve out of the State. On the ocean face of the ranges it appears lightly attached to the south coast behind San Diego, appearing successively at San Pedro, San Buenaventura, and Guadeloupe, where it reaches back to include Santa Maria. Closed curves including areas where the precipitation is less than 2 inches occur upon the valley land at Colton, on the lower Salinas at Soledad and upon the upper valley of the same river at San Miguel, on the San Benito at Hollister and on the Sacramento for a narrow area at Princeton. A sharp loop from the north includes Yreka and Hornbrook and a small arc cuts Cape Mendocino.

As in February the precipitation breaks away on the 3-inch line and will be examined in the same two members.

Upon the Southern Coast Ranges the 3-inch curve is drawn north along the coast to include the San Bernardino Peak whence it returns southward west of the summits. Within this area a 4-inch curve exists upon the San Bernardino Peak and a second on the southern series of heights incloses still higher curves. From the passage of the Santa Ana River through the San Bernardino Range a 3-inch curve is drawn westward along the coast through Ontario and San Gabriel and on the channel face of the Sierra de Santa Ynez, thence northward upon the ocean side of the Santa Lucia Mountains almost to Monterey and back along the rim of the Salinas Valley to Paso Robles, thence east of the valley it extends north to Mount Hamilton and west of the Great Valley through Tehachapi. Upon this 3-inch area is drawn a 4-inch curve at Jolon; one of the same weight extends from the head of the San Benito to Mount Hamilton upon which appears a 5-inch area as far south as Santa Ana Peak; a broad 4-inch area is drawn upon the Sierra de San Rafael; behind Los Angeles appear somewhat considerable areas which receive 4 and 5 inches of rain during this month. Another 3-inch curve passes from Monterey to the Santa Clara Valley and out at Point Año Nuevo, which includes the higher precipitation of the Santa Cruz Mountains.

Upon the northern region of the Sierras and Coast Ranges the curves of 3 to 7 inches enter along the Klamath and all pass south of Orleans except the 3 inch. Thence all follow the characteristic path down the Sierras, practically together, except that in Plumas County the 6 and 7 inch curves pass westward of Quincy and Meadow Valley. They are found to cross the Sierras at the headwaters of the Kern, the Poso, the Tule, the Kaweah and the San Joaquin. Above the Great Valley they are drawn at wider intervals, but east of Oroville they are once more assembled. The 3 and 4 inch curves cross the valley just north of Red Bluff and at once return upon that level toward the south; the 5, 6, and 7 inch curves after crossing the valley at Redding extend still further to include central Trinity County, and on their southern course pass west of Foats Springs, with the exception of the curve of 7 inches, which does not reach so far south. After the four curves reassemble in western Colusa it will be necessary to examine them separately because of the divergences which occur.

The curve of 5 inches covers the Vaca, Napa, and Sonoma Valleys, passes over upon the Contra Costa hills as far as Martinez, and southerly to include the Livermore Valley, thence back to Oakland and across the bay to pass out south of San Francisco.

The 4-inch curve reaches but a short distance into the Vaca Valley and then retires northward in a long and narrow loop as far as Ukiah, then prominently enters the Napa and Sonoma Valleys and after defining the Tamalpais Range in Marin County, passes out to sea through Drake's Bay. It reappears for a brief space at Cape Mendocino.

The 5-inch curve drawn with smoother curves and higher on the mountains, follows much the same track without, however, penetrating so far to the south as to affect the great orchard and vineyard valleys. It leaves the coast at Point Reyes, reënters to include Westport and then drawn across Cape Mendocino emerges at the mouth of Eel River, only to make a final appearance between Arcata and Trinidad Head.

The 6-inch curve is drawn down the Coast Ranges to include Lake County. Returning thence to the north it excludes Round Valley and persisting near the coast around Cape Mendocino it is drawn up the Eel River Valley and passes out to sea north of Trinidad Head. A short arc of a 6-inch curve appears upon the Sonoma coast, including Fort Ross.

The curve of 7 inches does not appear below Mount Linn, on the western boundary of Tehama County, thence westerly it reaches Upper Mattole, and following the next lower curve reaches the sea along the valley of the Klamath.

The curves from 8 to 11 inches are drawn upon the coast of Del Norte County and the lower Klamath, and are established by the records of Fort Ter Wah, Crescent City, and Camp Lincoln. The records obtained upon the high Sierras establish an 8-inch curve from Sierra to Alpine Counties.

The principal cities show the following amounts of March rains:

San Francisco	3.26
Oakland	3.72
Los Angeles	2.27
Sacramento	2.73
Stockton	1.84
San Diego	1.20
San José	2.56

April. -This month has brought about the summer type, which as it becomes better defined conditions the dry season of the Pacific Coast. The low which in March still endured upon the northwest coast is now replaced by the oceanic high. The second high rests upon the Central Valley, and between the two occur two lows which grow deeper to the north and south, respectively. The general rain areas have greatly diminished, particularly at the south, where this is the second month of the high, and such rain as does enter northward finds an impeded entrance, yet a chance to enter when the high, not as yet firmly established, is overridden by remnants of the winter conditions.

From the east an area of 1 inch of rain diffusely appears on the White Pine Ranges of Nevada as far west as Austin. The area which receives less than 1 inch includes all the rest of Nevada, the Colorado Desert, and, without interruption, the southern part of the Great Valley south of Tulare Lake. Disconnected areas where the rainfall comes short of an inch are as follows: In the valley west of the river between Tracy and Los Baños, in the valley of the Salinas, except just at its mouth, in the valley east of San Luis Obispo, and upon the Southern Coast Ranges north to Orange County and including the Santa Ana Valley as far as Riverside on the east and Ontario on the north, and out by Santa Monica. These areas are bounded by the curve of 1 inch. It appears in two arcs upon the northern boundary, one upon the area of less than 1 inch, inclosing the higher precipitation of Fort McDermit, the other bounding the area about Hornbrook, Montague, and Edgwood, in Siskiyou County, which receives less than 1 inch.

The 2-inch curve is nowhere continuous over the region, which will therefore be examined as before in distinct areas of precipitation.

Upon the Southern Coast Ranges the 2-inch curve reaches northward as far as the Red Lands and San Gorgonio Pass and includes curves of greater weight upon the mountains. More restricted areas of 2 inches appear north of the Los Angeles Valleys upon the San Bernardino Range east and west of El Cajon. Fort Tejon establishes another such area south of the Tehachapi Pass. A narrow arc of this curve cuts off Point Sal and Guadeloupe. Upon the Coast Ranges south of the Golden Gate a 2 inch curve appears, overhanging the Santa Clara Valley on the north slope of Mount Hamilton, thence by Gilroy and Los Gatos to include the Santa Cruz Mountains, from which it assumes a position on the ranges east of the San Benito as far as the headwaters of that stream, where it returns to its point of beginning. Within this curve a 3-inch area appears on the mountains from Mount Hamilton to Santa Ana Peak.

On the northern area of precipitation the curves of 2, 3, and 4 inches enter on the south-flowing reach of the Klamath River, pass together down the Sierra Nevada, except that the 4 inch curve swings out westward to exclude Meadow Valley, in Plumas County. The three curves extend along the mountains as far as the headwaters of Poso Creek, the Kaweah, and the Merced, respectively. Loosely assembled on the east side of the Great Valley they cross it in Tehama and Shasta Counties and the curve of 4 inches is extended to reach about central Trinity County. The 2-inch curve in its southern path west of the Sacramento Valley loops about the Capay and Vaca Valleys, reaches well down the Napa Valley, and then looping the Sonoma and Russian River Valleys runs out to sea along the Tamalpais Range. The 3 inch curve is attracted about Round Valley and then follows the lower curve to the coast, where it emerges at Point Arena. At Round Valley this curve includes a restricted area of not quite 2 inches and at Fort Ross an area of 4 inches. It appears finally at Fort Bragg. The 4-inch curve extends south in Mendocino County to include Westport and then follows the coast northerly as far as Arcata. The 5-inch curve entering the Klamath Valley does not persist upon the Sierras, but obscurely following the lower curve runs out to sea at Trinidad Head. Within this area the record at Fort Gaston establishes an area of 4 inches on the Hoopa Valley. Upon the high

Sierras a 5-inch area appears from Plumas to Tuolumne Counties which is almost severed by the lower records of Bear Valley and in each portion contains smaller areas of 6 and 7 inches. Other curves of 6 and 7 inches are found upon the extreme northwestern coast.

The April average rainfall recorded in the principal cities is as follows:

San Francisco	1.93
Oakland	2.17
Los Angeles	1.29
Sacramento	1.85
Stockton	1.32
San Diego	0.72
San José	1.77

May.—With the secure establishment of the summer type the rains have almost vanished upon the entire Pacific Coast. California and Nevada for the greater part are under cloudless skies, and no considerable area receives more than 2 inches during the month.

The 1-inch curve is traced upon extreme eastern Nevada, including Eureka. With no very distinct definition a similar curve lies upon the northern boundary of the Silver State, with areas of 2-inch precipitation upon it at Tuscarora and Fort McGarry. In California the 1 and 2 inch curves still keep to the characteristic path upon the highest Sierras, but make no record on the Great Valley floor and pass westward across Shasta County to the sea, upon the Mendocino and Humboldt coasts. The showers which in this month come opportunely on the three great orchard valleys of Vaca, Napa, and Sonoma establish a curve of 1-inch drawn in from sea toward the western wall of the Great Valley, and upon it appears a 2-inch arc at Point Reyes. A twelve-year record establishes the extremely anomalous 1-inch area at Lewis Creek east of Tulare Lake. Another area of the same weight is found on the Mount Hamilton range of mountains. Still another includes the Santa Cruz Mountains. The curve of 3 inches appears only in Del Norte County; among the redwoods of Boulder Creek, and at Susanville, in Lassen County. Dunsmuir in the shadow of Shasta establishes a closely restricted area of 4 inches.

The cities are as dry as the farms, as appears from their records:

San Francisco	0.67
Oakland	0.76
Los Angeles	0.31
Sacramento	0.74
Stockton	0.53
San Diego	0.33
San José	0.51

June, July, and August.—The dryness is now complete; the high upon the ocean has now become so strong that the humid air of the sea can neither drive it back nor find a weak spot, save in the train of some of the rare lows which have had the intensity to momentarily overthrow this condition. Rain is almost absolutely absent from the California and Nevada charts for these months. Brief note will be made of the few stations which show an inch or more.

In June an inch appears at Westport, Upper Mattole, Meadow Valley, and at Fort Bidwell; from Delta to Hornbrook Mount Shasta establishes a curve of 1 inch, rising to 2 inches at Sissons; 1 and 2 inches appear close to the coast from Eel River north.

July shows a record of 1.58 inches at El Dorado Cañon, average of 2 years, which may point toward the coming of the summer seasonal rains in Arizona; Meadow Valley has a single record of 2.40.

In August Meadow Valley still shows a curve of 1 inch, and the *temporales* of Arizona and New Mexico now avail to draw an inch curve over eastern Nevada, which incloses a 2-inch area about Pioche.

The summer records for the cities show the same state of drought, and are here inserted only to complete the record:

San Francisco:	
June	0.15
July	0.02
August	0.02
Oakland:	
June	0.40
July	0.02
August	0.02
Los Angeles:	
June	0.09
July	0.02
August	0.10
Sacramento:	
June	0.12
July	0.02
August	0.00

Stockton:

June 0.13
July 0.01
August 0.00

San Diego:

June 0.07
July 0.06
August 0.14

San José:

June 0.20
July .... a trace.
August 0.00

Thus the record of the year by averages of many years has been rounded out. The rain and the drought have been shown to be constant, each in its appointed time and at its appointed place.

ECONOMIC FEATURES.

In the course of the preceding memoir the climate of the two States has been examined and discussed. The inquiry has penetrated to the ultimate analysis into the two factors of the Cordilleran and the Pelagic influence. It has investigated each separately, and it has combined them in the varying proportions which obtain month by month in the periodic alteration of the conditions of temperature and barometric pressure. It has shown the broad outlines of the yearly precipitation upon the region, and by monthly periods has examined the modifying influence of local causes in the several districts which are marked out by nature as natural subdivisions of the region. Here in its stricter sense determines the province of the meteorologist and student of climatology. Yet it may not be inappropriate to indicate the varying modes in which this precipitation becomes available to agriculture. This is the work of the engineer, and its details must be sought from those to whom it is the special study. In this place nothing further will be attempted than to indicate the broad outlines of the further study which will utilize to economical ends the facts of the climate hereinbefore set forth.

The precipitation falls upon the earth, and there is part returned to the atmosphere by evaporation, part sinks into the soil, and a part stands in pools, in snowbanks on the slopes, and even as glaciers upon the high Sierras, from which it drains away in streams and rivers. The amount evaporated is lost to all economic purposes; the amount absorbed may be utilized at extreme distances to a certain extent by artesian wells; the surface flow may be utilized to a greater extent, but is more narrowly restricted in its utility to the neighborhood of the area upon which the particular precipitation has occurred. Disregarding the amount evaporated, a summary statement will be made of the surface flow so far as measured, and of the artesian flow to such an extent as reliable statistics have been gathered.

The river contents.—Measurements of river flow have been made in several of the Californian streams, extending over a series of years. Some, and of this number is the Sacramento, have been gauged for the purpose of studying the problem of the management of flood waters. Some have been concerned solely with a view to discussing their availability for irrigation supply, and in this class of observations fall those conducted upon the upper affluents of the San Joaquin and the watercourses of the southern valleys. The following table, prepared by the State engineer of California, exhibits the monthly and seasonal flows of a number of these streams averaged from a six-year series of observations.

Average flow of streams for six years—November 1, 1878, to October 31, 1884.

Name of stream.	Averages of mean monthly discharges, cubic feet per second.											
	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.
Sacramento River	8,700	15,067	30,500	38,167	60,833	93,833	93,833	62,667	23,833	10,250	7,083	7,917
Cosumnes River	81	244	527	1,214	1,547	3,074	3,722	3,055	1,159	324	66	83
Dry Creek	21	115	276	613	667	830	250	83	5	1	2	12
Mokelumne River	123	292	469	1,261	1,607	3,226	3,911	3,296	1,252	269	74	113
Calaveras River	29	135	492	1,172	1,344	1,832	961	217	49	2	0	12
Stanislaus River	146	538	688	2,044	2,645	4,236	5,290	4,929	2,158	449	127	162
Tuolumne River	215	556	909	1,801	2,754	5,538	7,622	8,188	3,752	751	196	266
Merced River	183	456	590	1,587	1,784	3,264	4,528	4,340	1,973	504	188	210
Bear Creek	4	25	46	171	219	212	67	28	11	0	0	3
Mariposa Creek	3	20	36	120	162	122	50	22	8	0	0	0
Chowchilla Creek	9	45	78	359	535	166	172	136	45	3	0	0
Fresno Creek	0	64	123	392	568	175	194	143	45	5	0	0
San Joaquin River	387	792	1,054	1,945	2,133	4,252	8,663	10,156	5,111	1,355	555	495
Kings River	313	510	615	1,290	1,817	4,190	7,588	8,180	4,655	1,162	455	447
Kaweah River	113	208	263	652	810	1,396	1,816	1,939	980	271	139	97
Tule River	88	136	215	585	605	702	1,138	1,017	669	250	106	75
Deer Creek	13	26	49	121	143	131	75	29	1	0	0	4
White Creek	11	20	38	101	119	163	61	23	1	0	0	3
Poso Creek	34	64	126	325	384	345	198	75	2	0	0	5
Kern River	374	433	443	658	792	1,189	2,481	3,006	1,897	851	467	392
Caliente Creek	50	100	180	475	562	504	287	110	3	0	0	0

***Average flow of streams for six years*—*November* 1, 1878, *to October* 31, 1884—Continued.**

Name of stream.	Average for periods of three months and yearly means, cubic feet per second.					Area drainage basin, square mile.
	Nov. to Jan.	Feb. to Apr	May to July.	Aug. to Oct.	Annual averages.	
Sacramento River	18,187	64,643	60,067	6,433	37,632	26,187
Cosumnes River	295	1,956	2,659	159	1,234	580
Dry Creek	136	704	113	5	237	283
Mokelumne River	296	2,038	2,841	152	1,321	657
Calaveras River	221	1,465	411	10	520	491
Stanislaus River	459	2,411	4,189	247	1,958	1,051
Tuolumne River	1,279	3,365	6,519	663	2,685	1,501
Merced River	411	2,219	3,934	301	1,631	1,076
Bear Creek	26	201	47	1	65	166
Mariposa Creek	20	138	27	0	46	122
Chowchilla Creek	44	456	118	2	152	268
Fresno Creek	66	482	127	3	167	272
San Joaquin River	750	2,462	7,458	808	3,074	1,637
Kings River	445	2,408	6,791	688	2,584	1,742
Kaweah River	196	963	1,574	169	723	619
Tule River	130	636	941	139	451	437
Deer Creek	29	134	35	1	49	110
White Creek	22	110	29	1	40	90
Poso Creek	73	352	92	2	145	289
Kern River	429	803	2,451	574	1,110	2,345
Caliente Creek	117	517	134	2	191	423

The artesian flow.—Nothing but the special conditions mark anything unusual about artesian flow, which is but an expression of the common law of flowage. The strangeness is seeming and is due to partial and incomplete observation. The water enters permeable strata at a distance and at an elevation; following the dip beneath the surface, it is confined between impervious strata, and in accordance with the general law of hydraulic equilibrium rises to the surface or higher when deep boring affords an avenue of escape.

Concerning the artesian water of California one statement may be positively made. The water is invariably derived from the precipitation on the mountains of the State, and can not possibly be drawn from any more distant and possibly more abundant source of supply. This is made clear by the investigations of the geologists who have found the high ridges of the Sierra to expose beds of Archæan granite. Whatever flow of subterranean water there may be must occur in strata which in the valleys overlie the Archæan, and which upon the mountains present their outcroppings at a lower altitude. From this it is made manifest that the underground flow is but a variant of the flow of surface streams, and that each alike heading upon the mountains finds its source in the rainfall.

The State engineer of California in a partial report upon the artesian wells of the State has given the data pertaining to 300 wells in the Great Valley, to 450 in the single county of San Bernardino, and 50 in a limited tract of Los Angeles County. Reference to that report (Hall's Physical Data of California) will show exactly what success has attended those operations of deep drilling. In the present connection it suffices to note that millions of gallons of water rise to the surface in every 24 hours for purposes of irrigation and domestic supply.

These are facts for the engineer to discuss. The Signal Service may rest content with the foregoing presentation of the amount, character, and distribution of the rainfall, which it is evident is not only ample to maintain the present high development of works of agriculture, but may by well devised systems of storage condition an enormous extension of the districts which need but a controllable supply of water to produce wheat, oil, and wine, and the orchard fruits of the tropics as well as the temperate zone.

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Willow Grove
Ft. Mojave
Hualpai
Simmons
Needles
Ft. Whipple
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PRESCOTT
Signal
Date Creek
Antelope Valley
Walnut Grove
Camp Colorado
Wickenburg
La Paz
Buckeye
Maricopa
Agua Caliente
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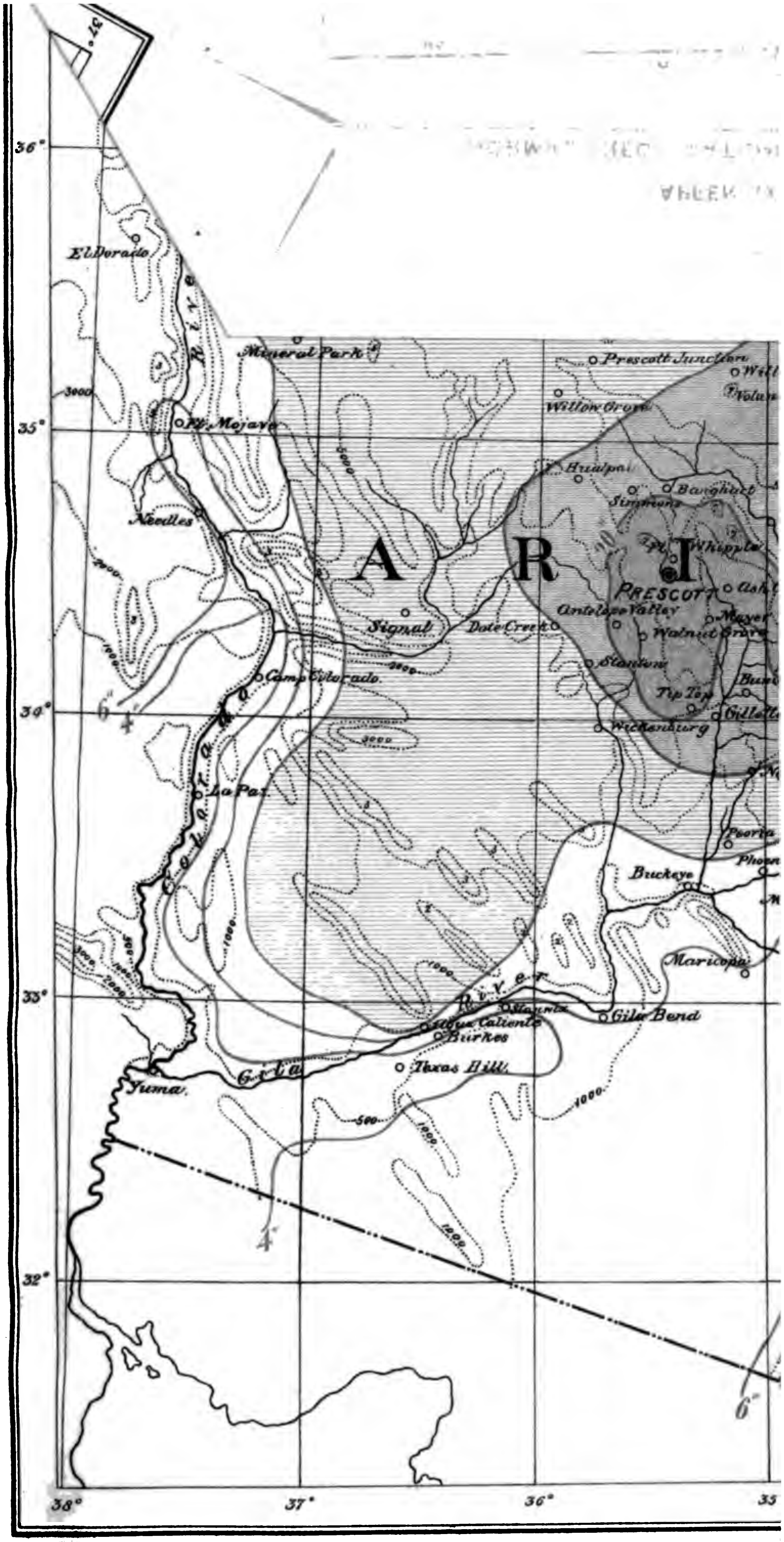

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Antelope Valley
Signal
Date Creek
Walnut Grove
Stanton
Camp Colorado
Tip Top
Wickenburg
La Paz
Colorado
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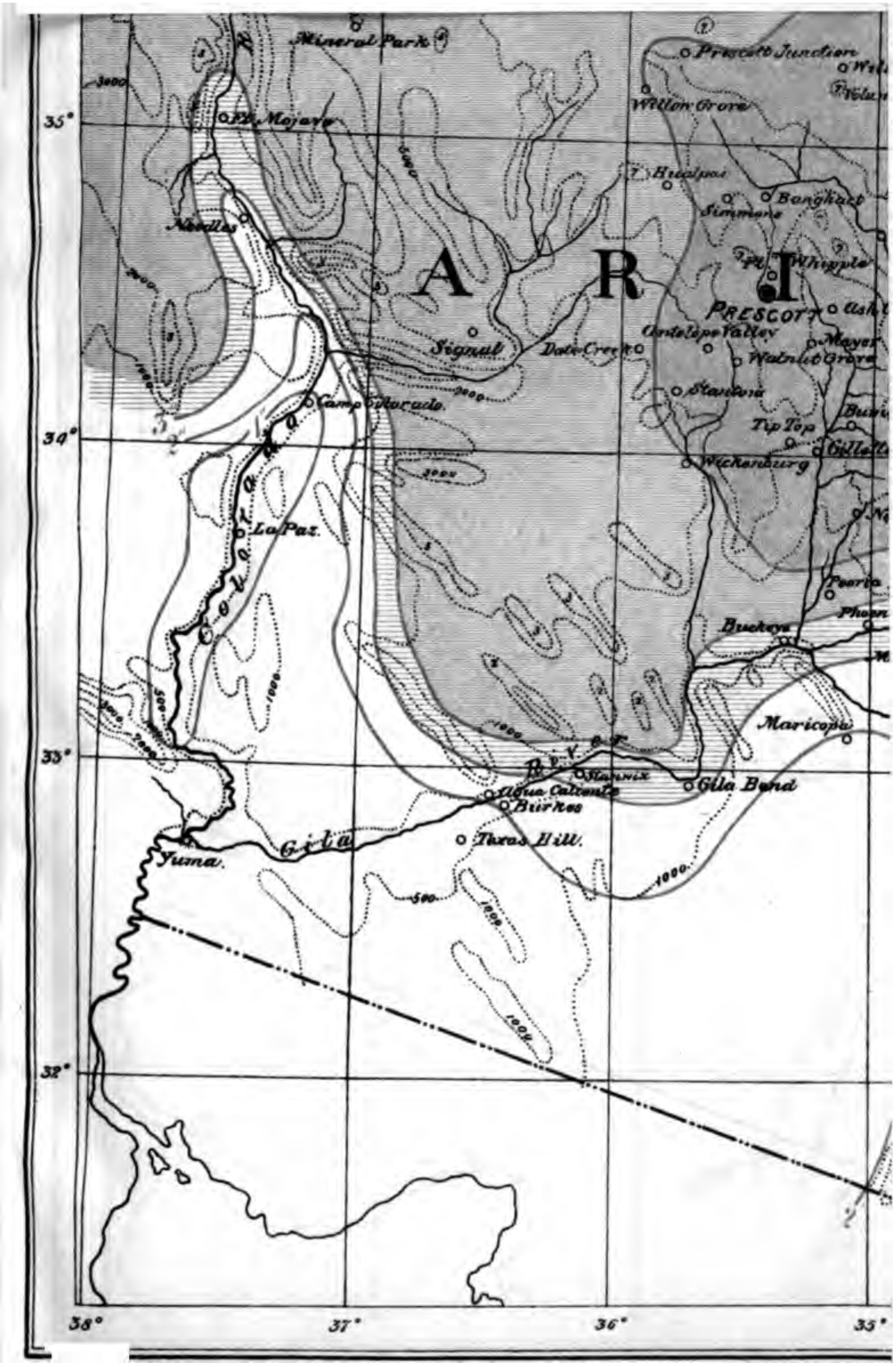

Mineral Park
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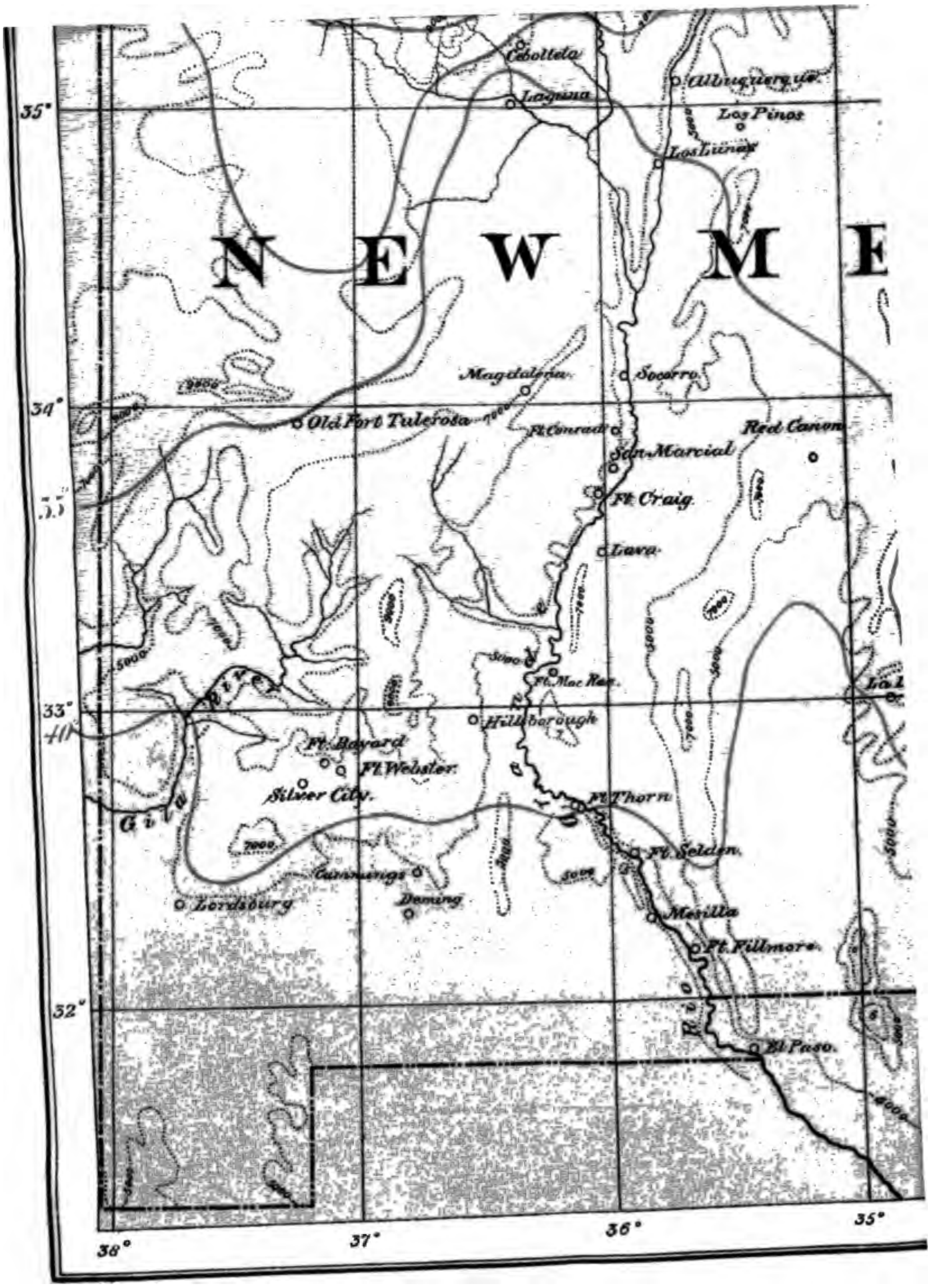
N E W M E
Cebolleta
Laguna
Albuquerque
Los Pinos
Los Lunas
Magdalena
Socorro
Old Fort Tulerosa
Ft. Conrad
San Marcial
Red Canon
Ft. Craig
Lava
Ft. Mac Rae
Hillsborough
Gila River
Ft. Bayard
Ft. Webster
Silver City
Ft. Thorn
Ft. Selden
Cummings
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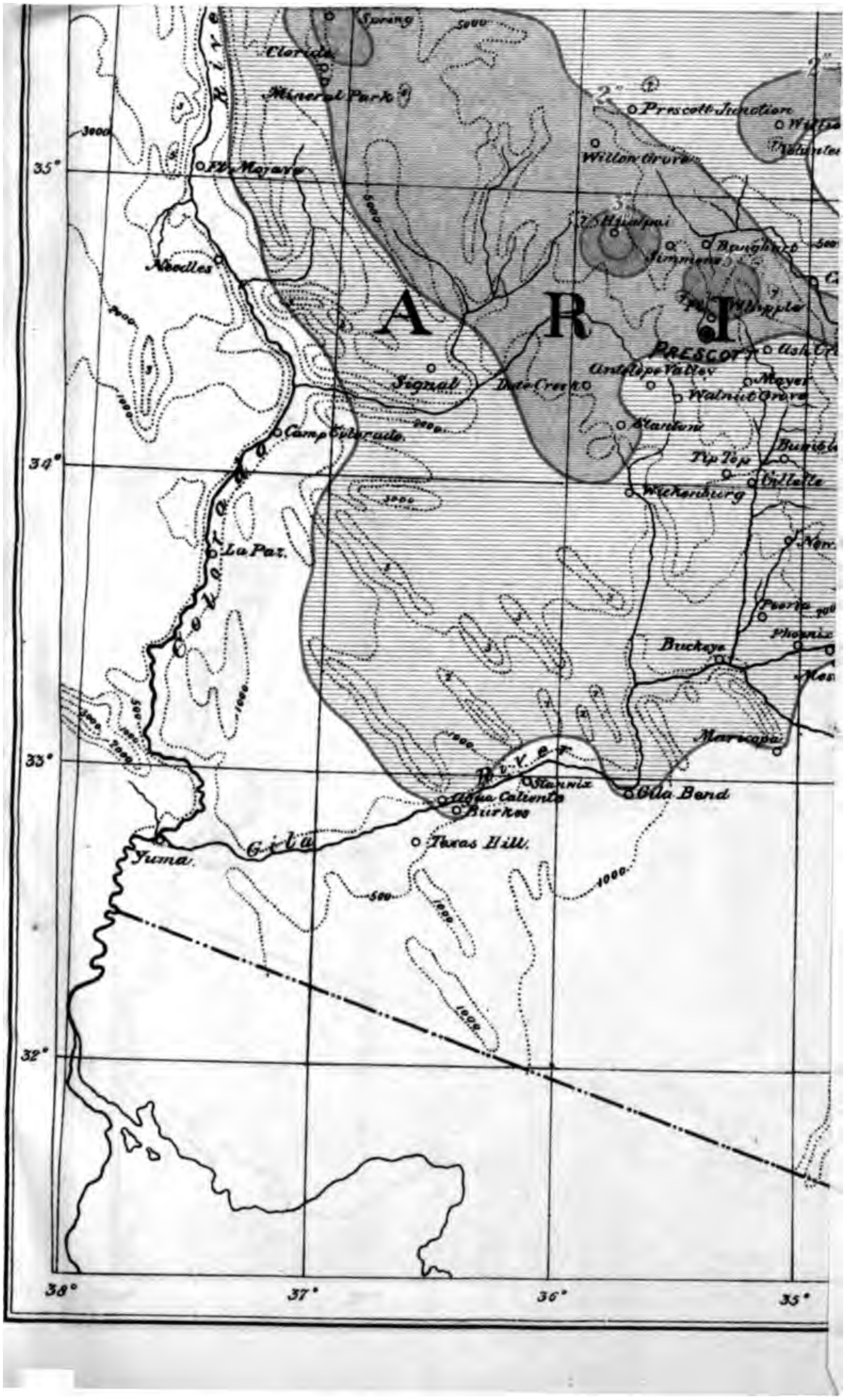

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Willow Grove
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Needles
Simmons
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Antelope Valley
Mayer
Walnut Grove
Signal
Date Creek
Camp Colorado
Tip Top
Wickenburg
La Paz
Peoria
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Maricopa
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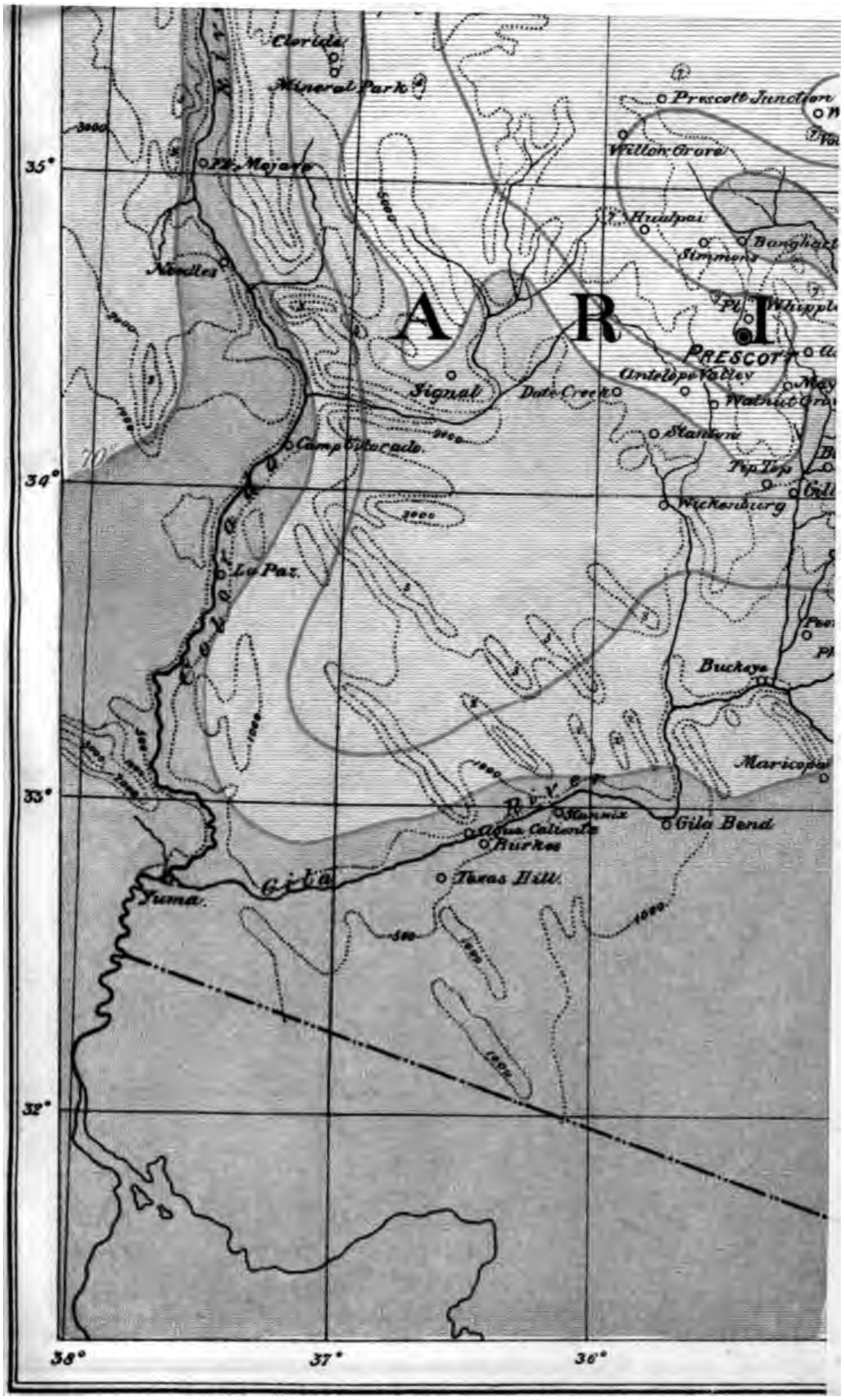
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Antelope Valley
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Tip Top
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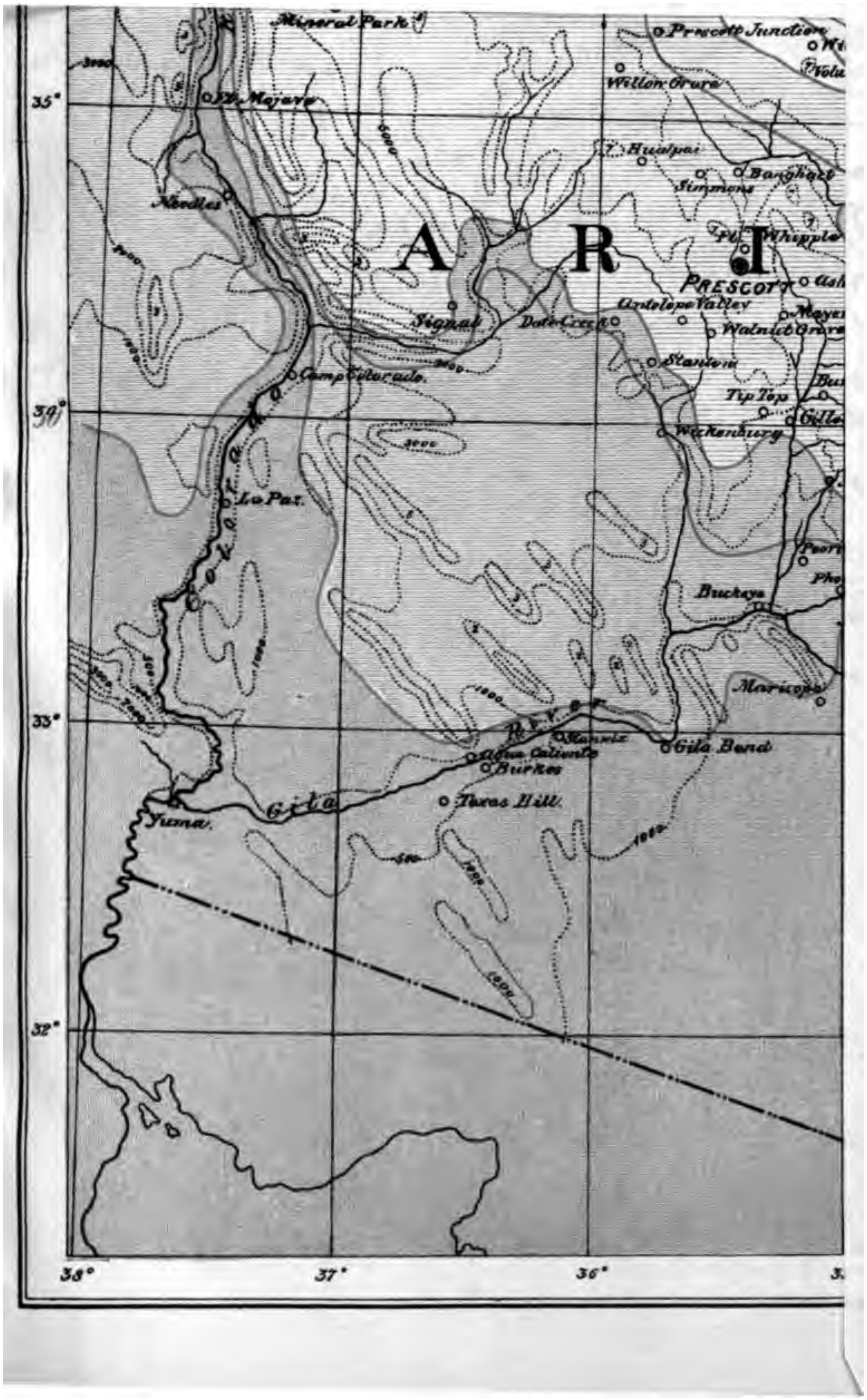
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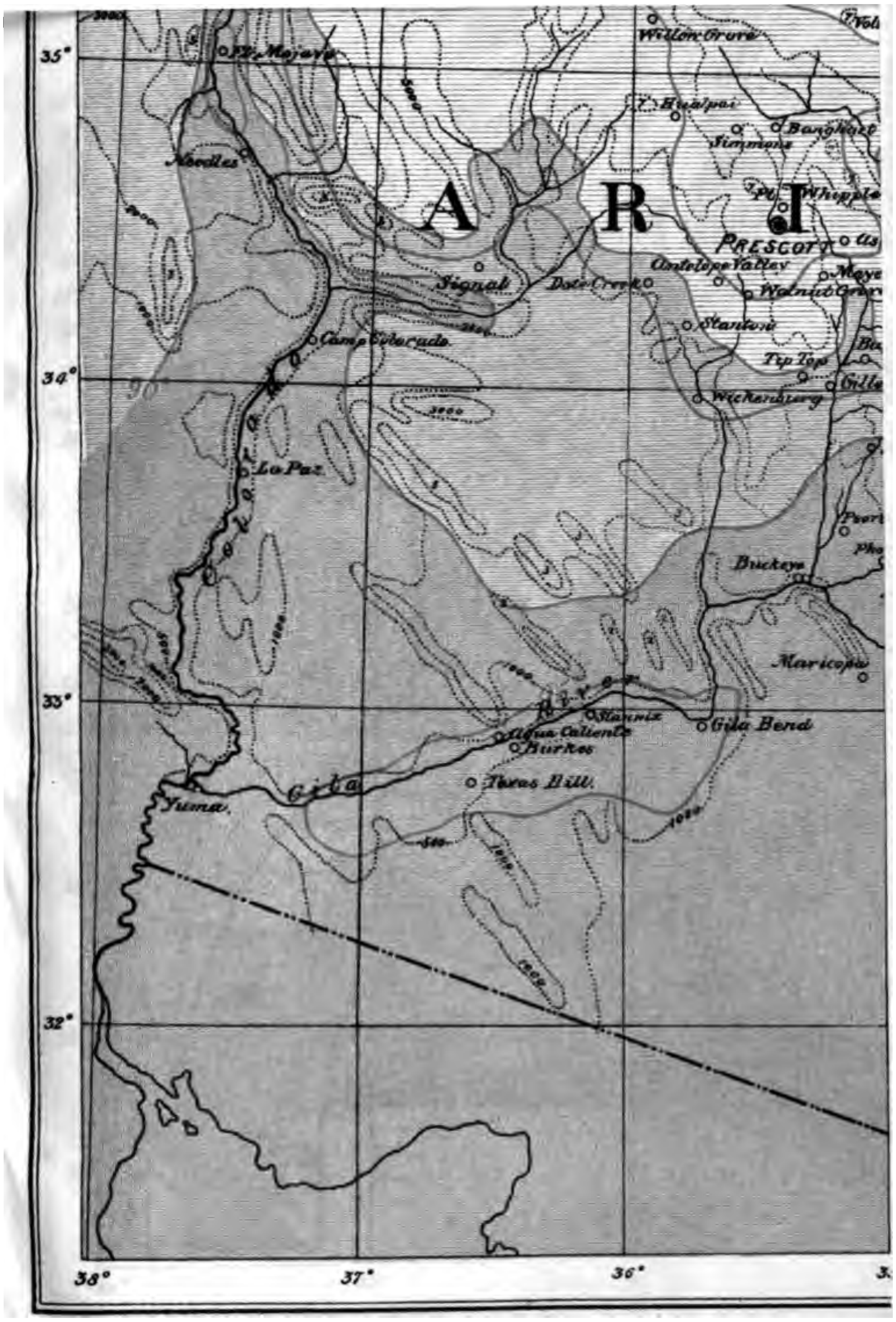

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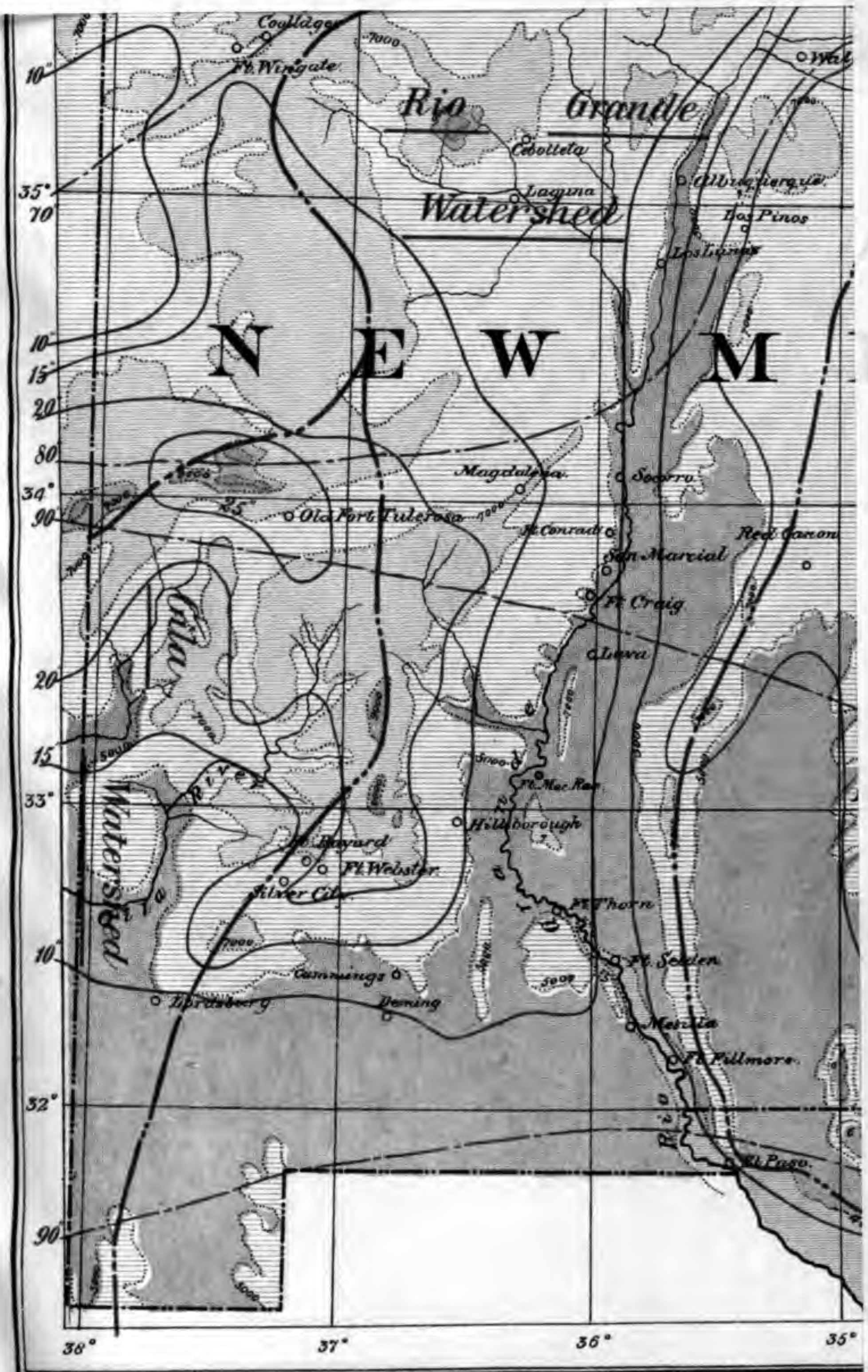

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Rio Grande
Watershed
Cebolleta
Laguna
Albuquerque
Los Pinos
Los Lunas
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Magdalena
Socorro
Old Fort Tulerosa
Ft. Conrad
San Marcial
Red Canon
Ft. Craig
Lava
Gila
River
Watershed
Ft. Mac Rae
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Bayard
Ft. Webster
Silver City
Cummings
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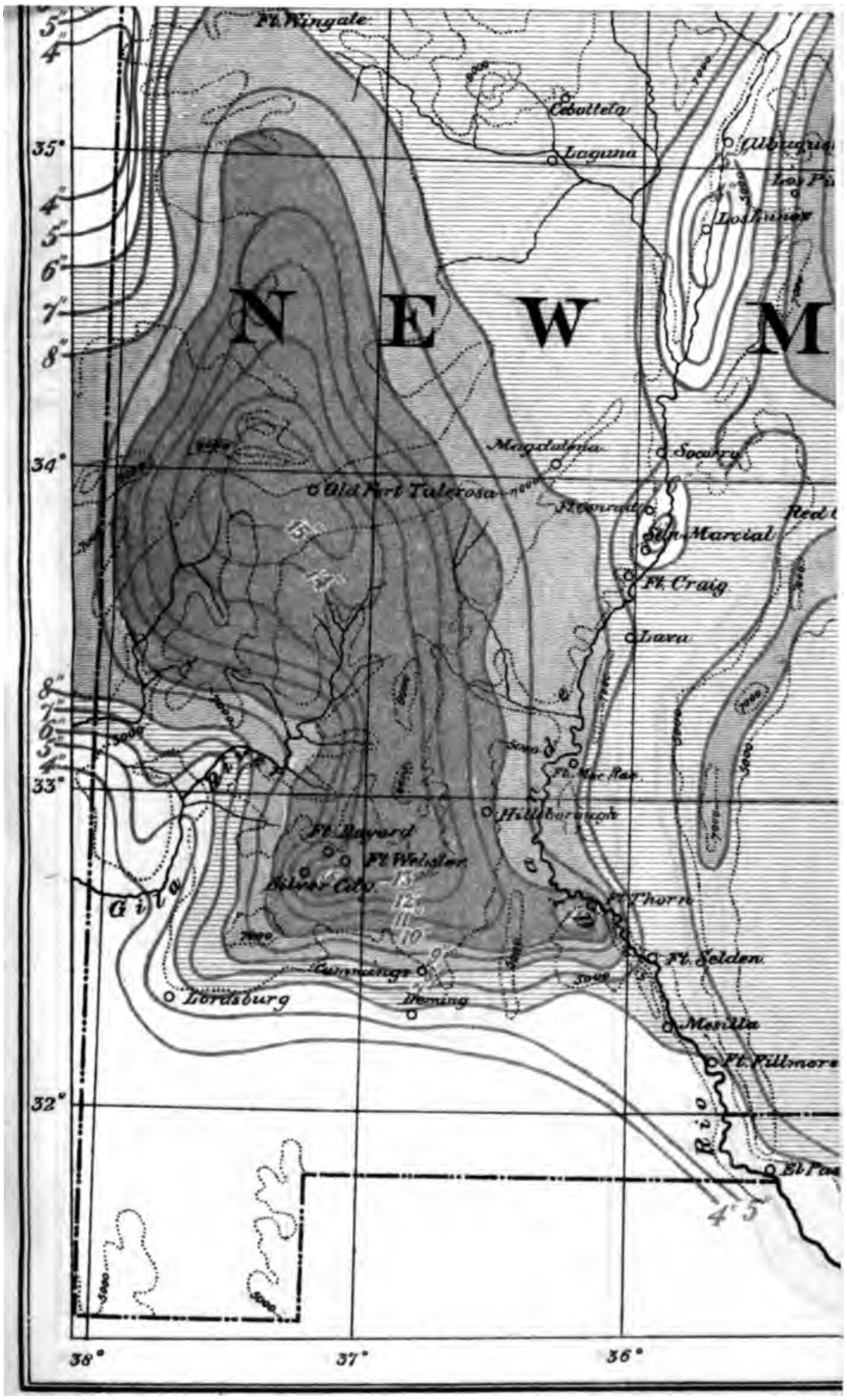
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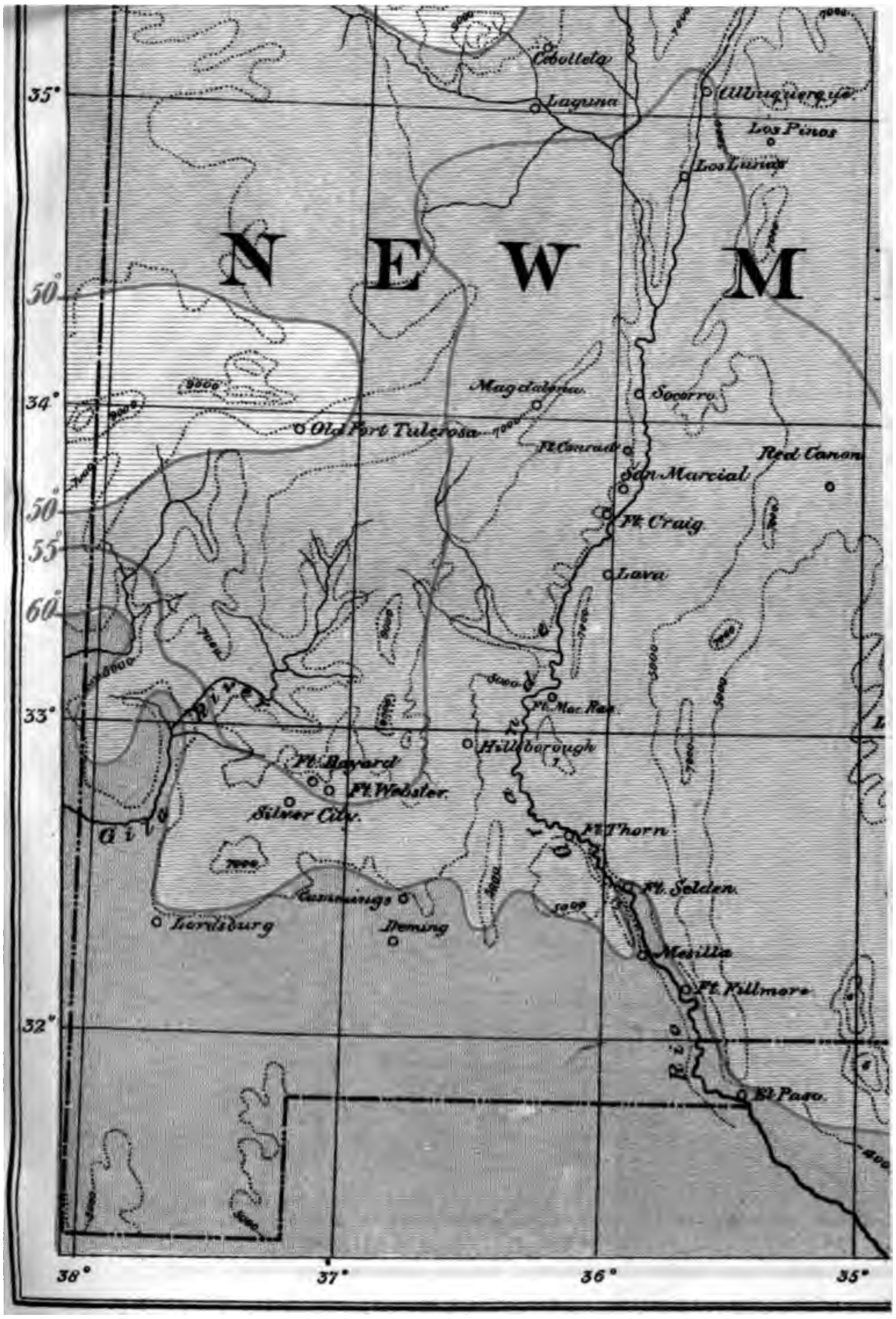
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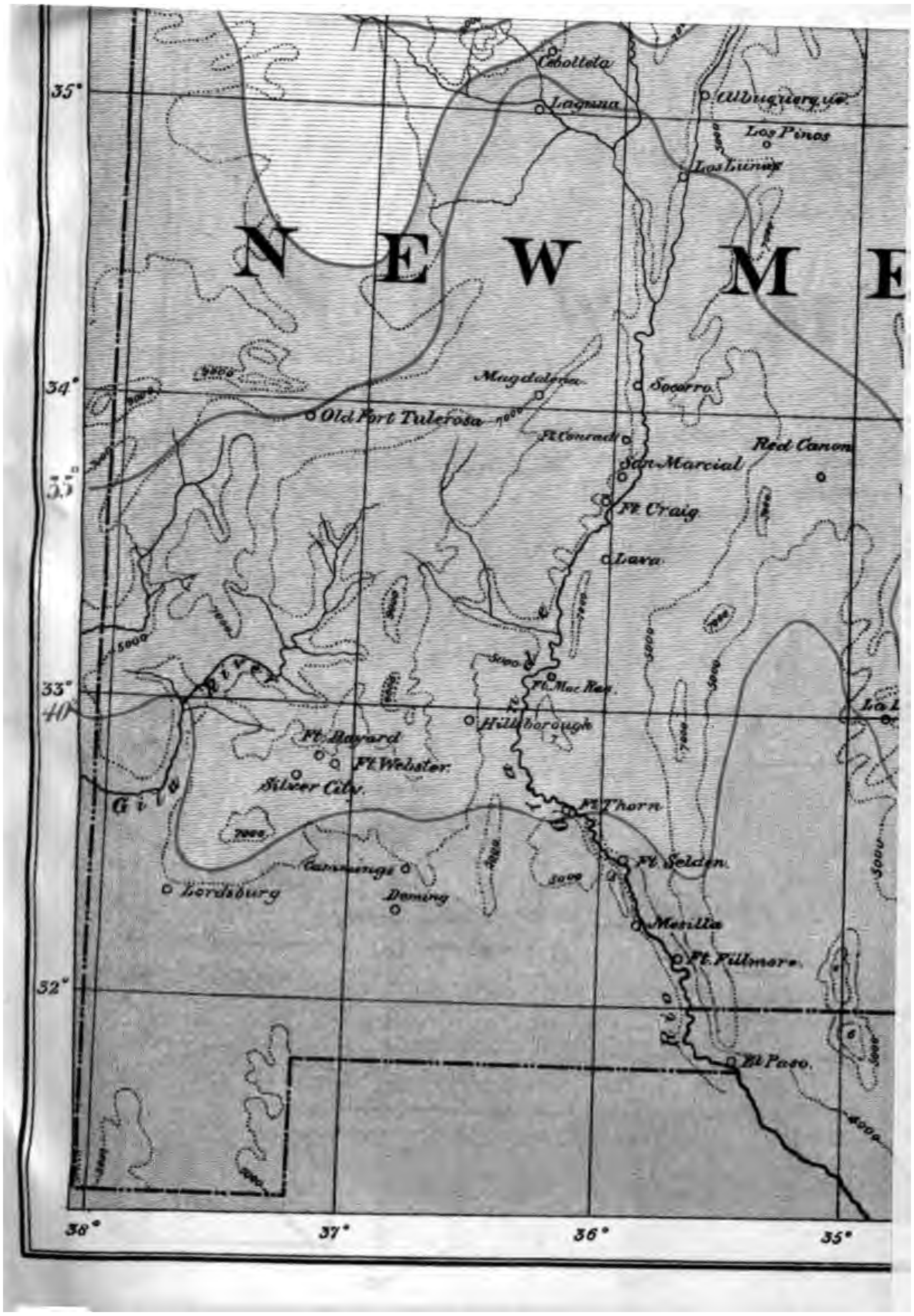
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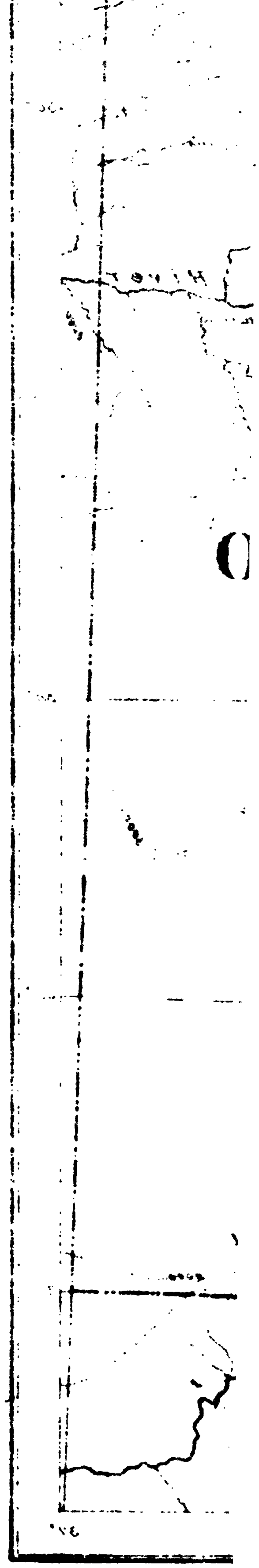

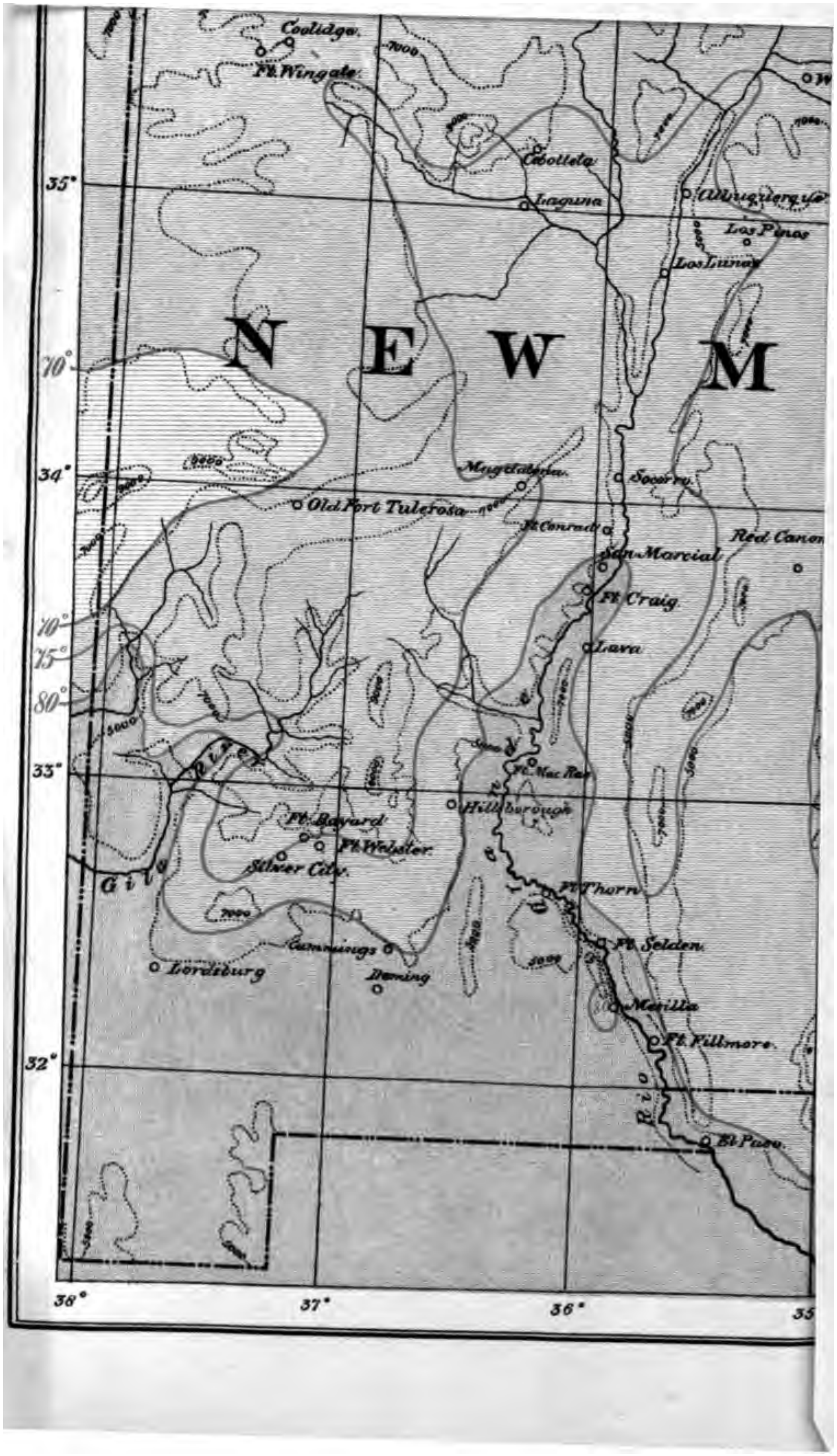
Coolidge
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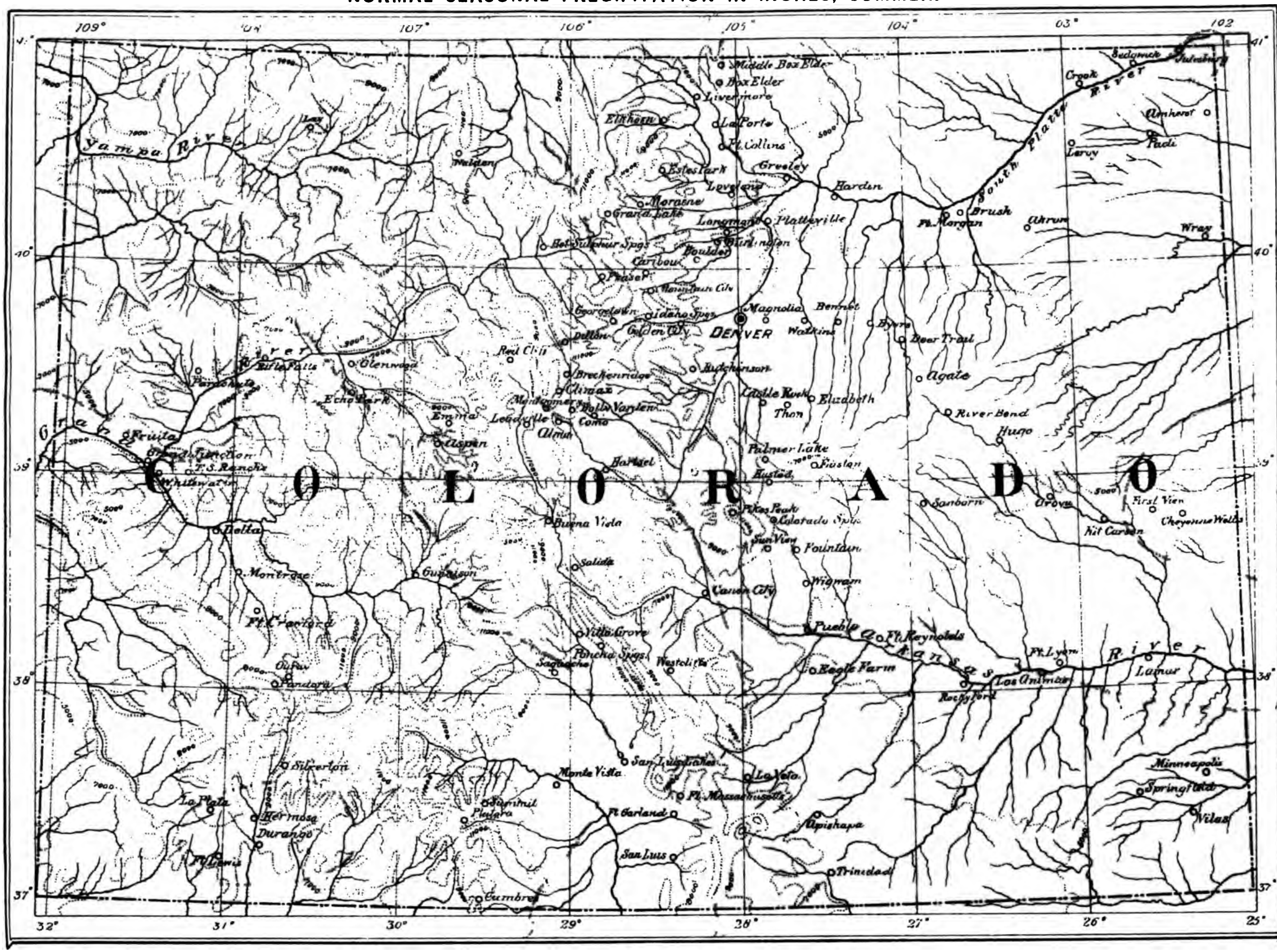
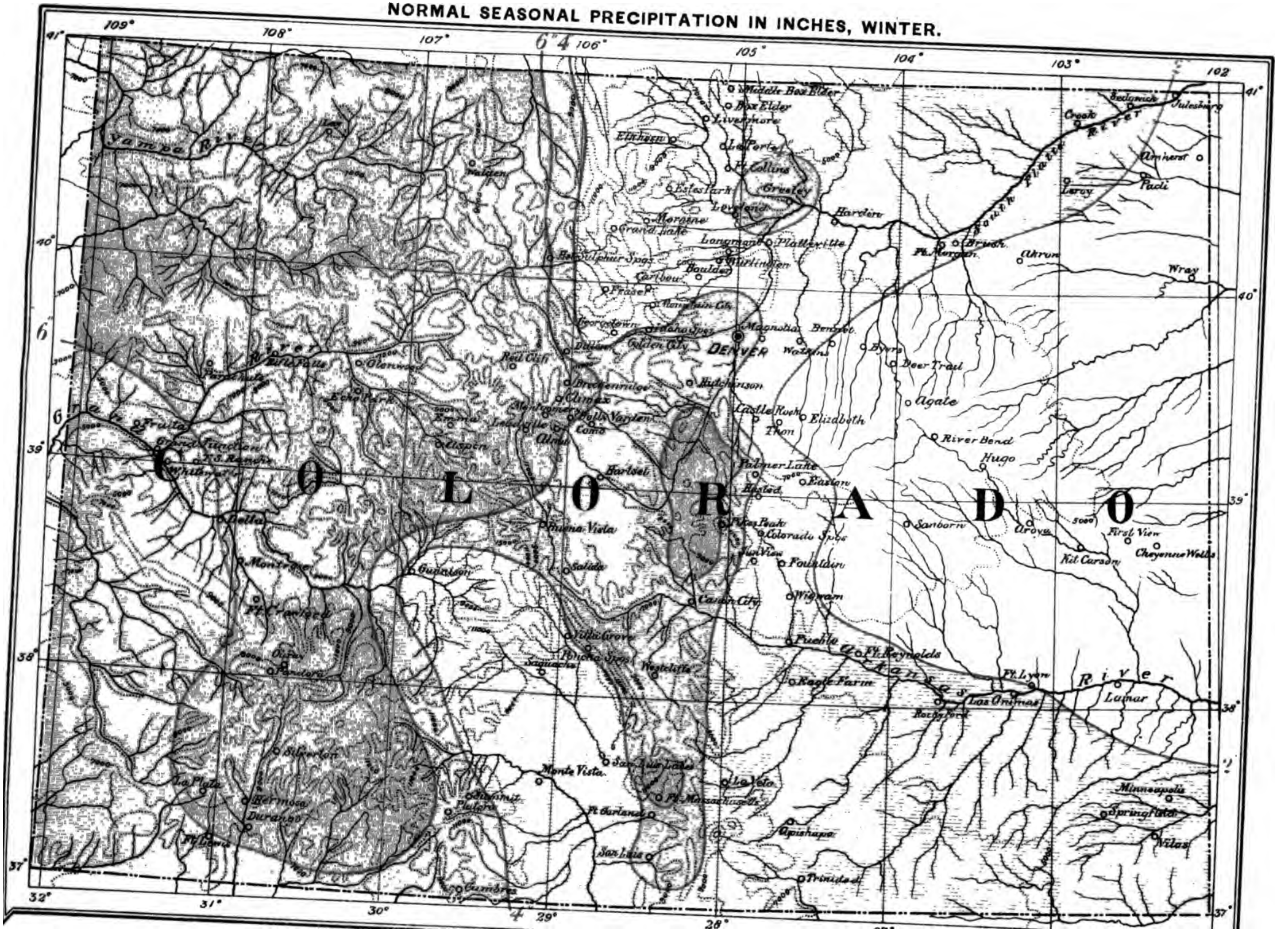
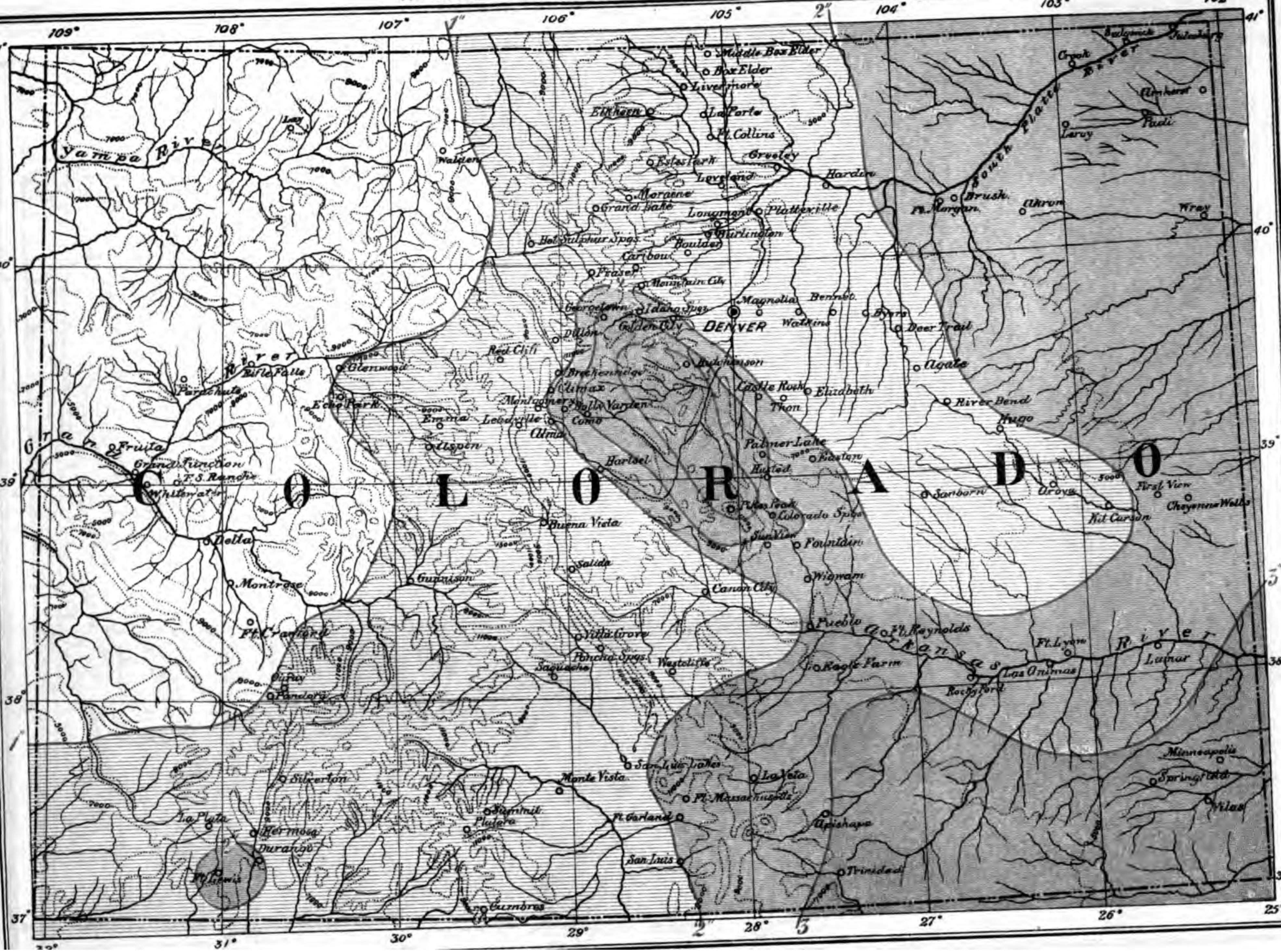
NORMAL SEASONAL PRECIPITATION IN INCHES, SUMMER.



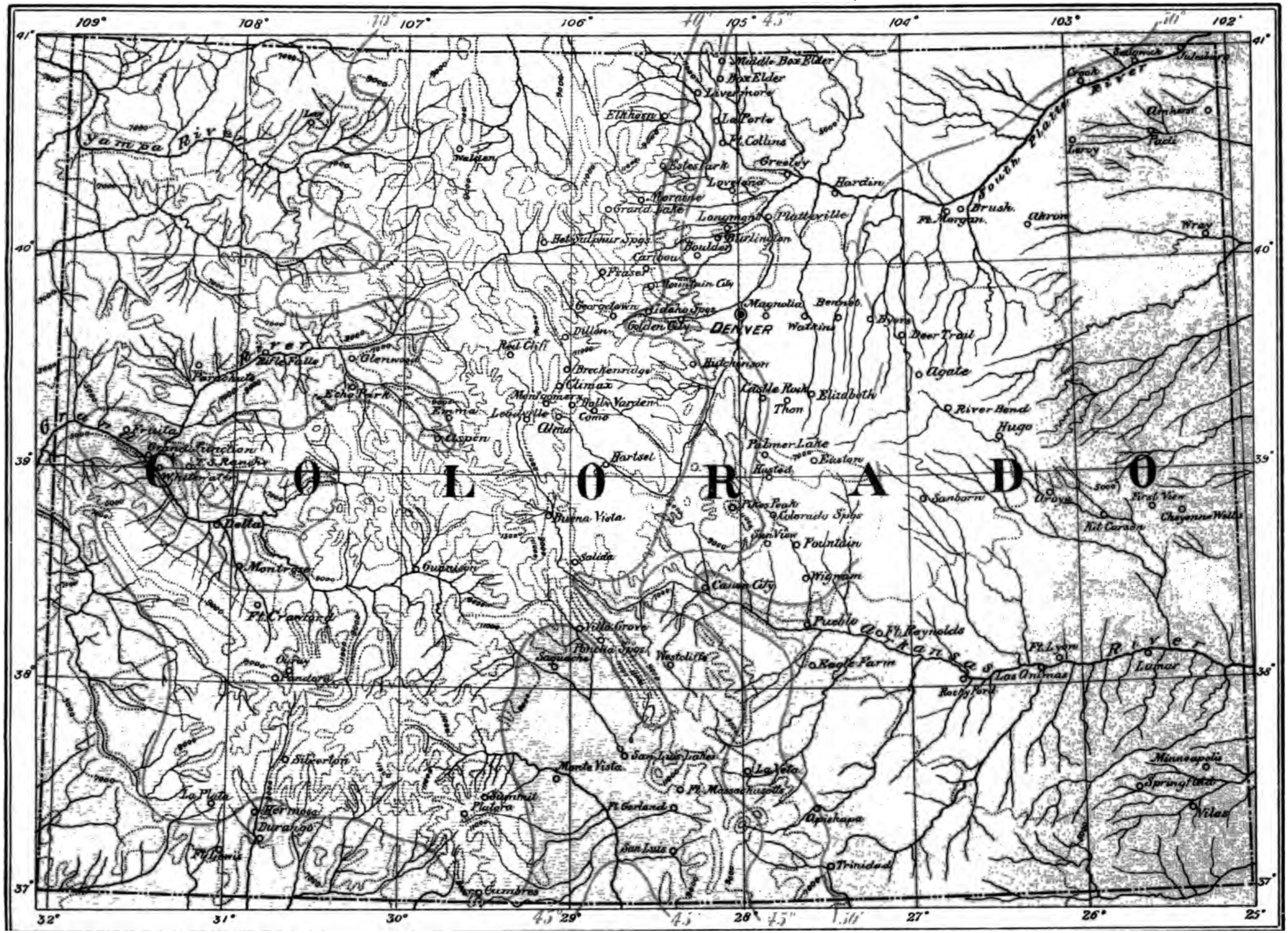
NORMAL SEASONAL PRECIPITATION IN INCHES, WINTER.



NORMAL PRECIPITATION IN INCHES, JULY.



NORMAL TEMPERATURE IN DEGREES FAHRENHEIT, ANNUAL.



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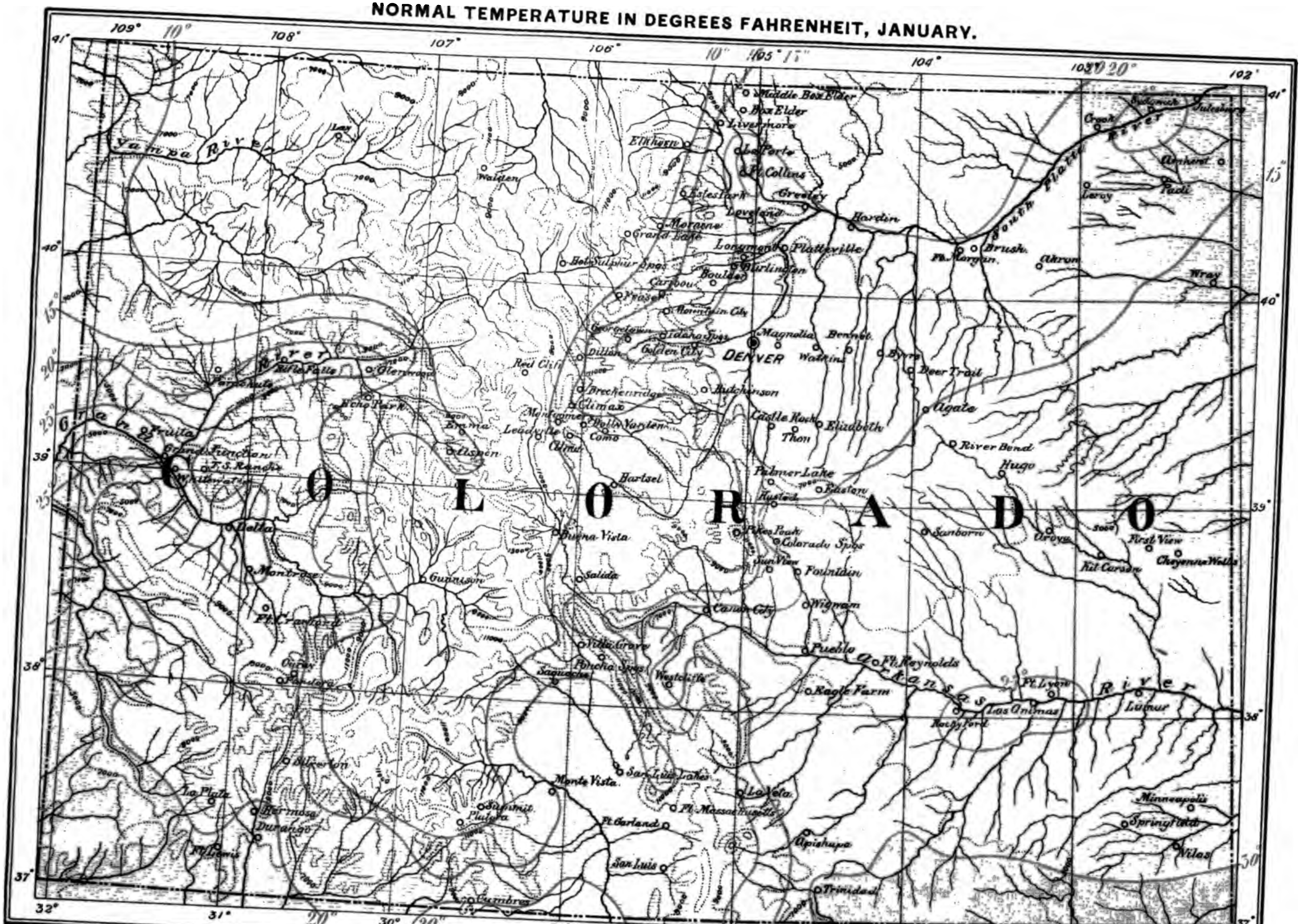

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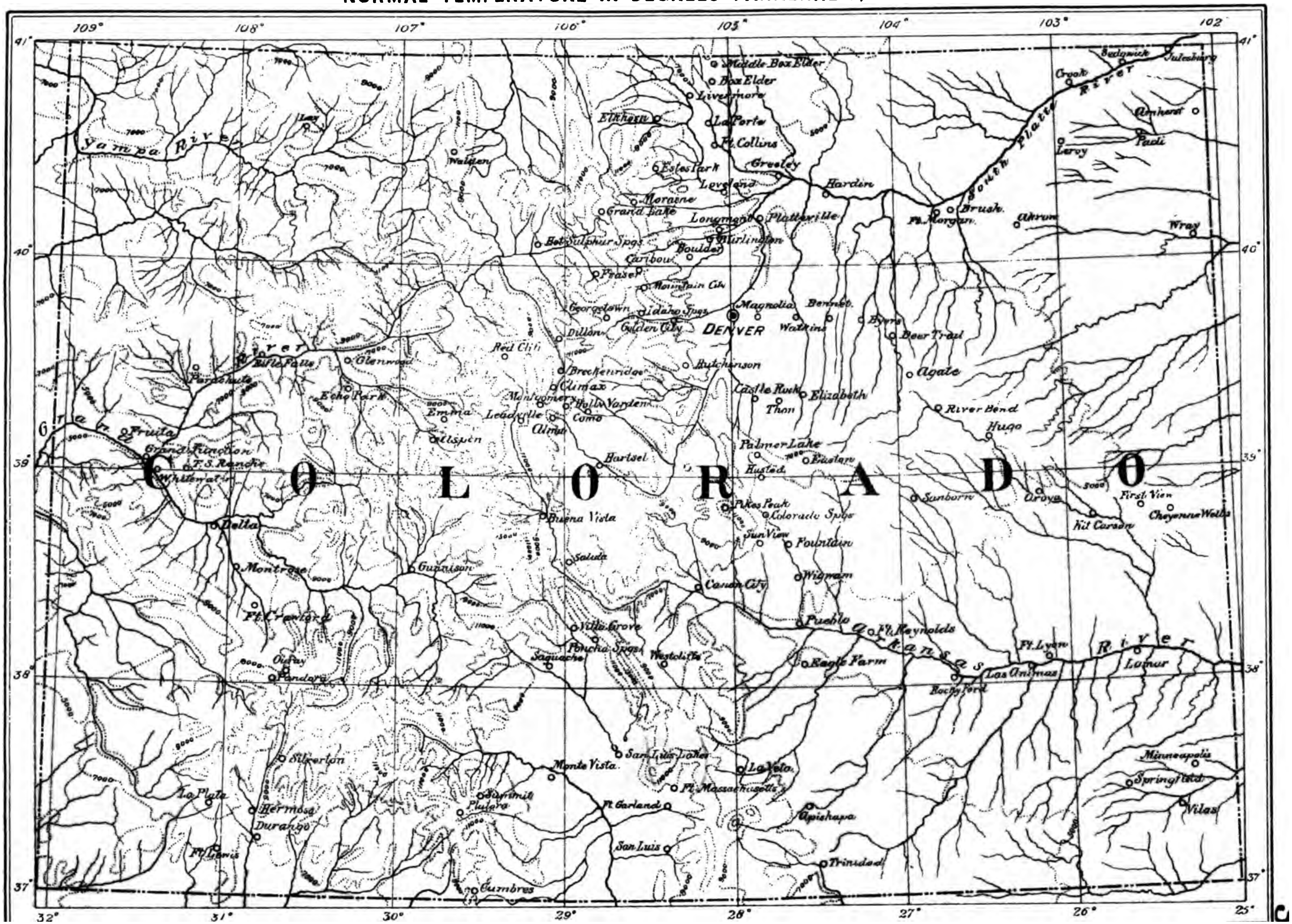
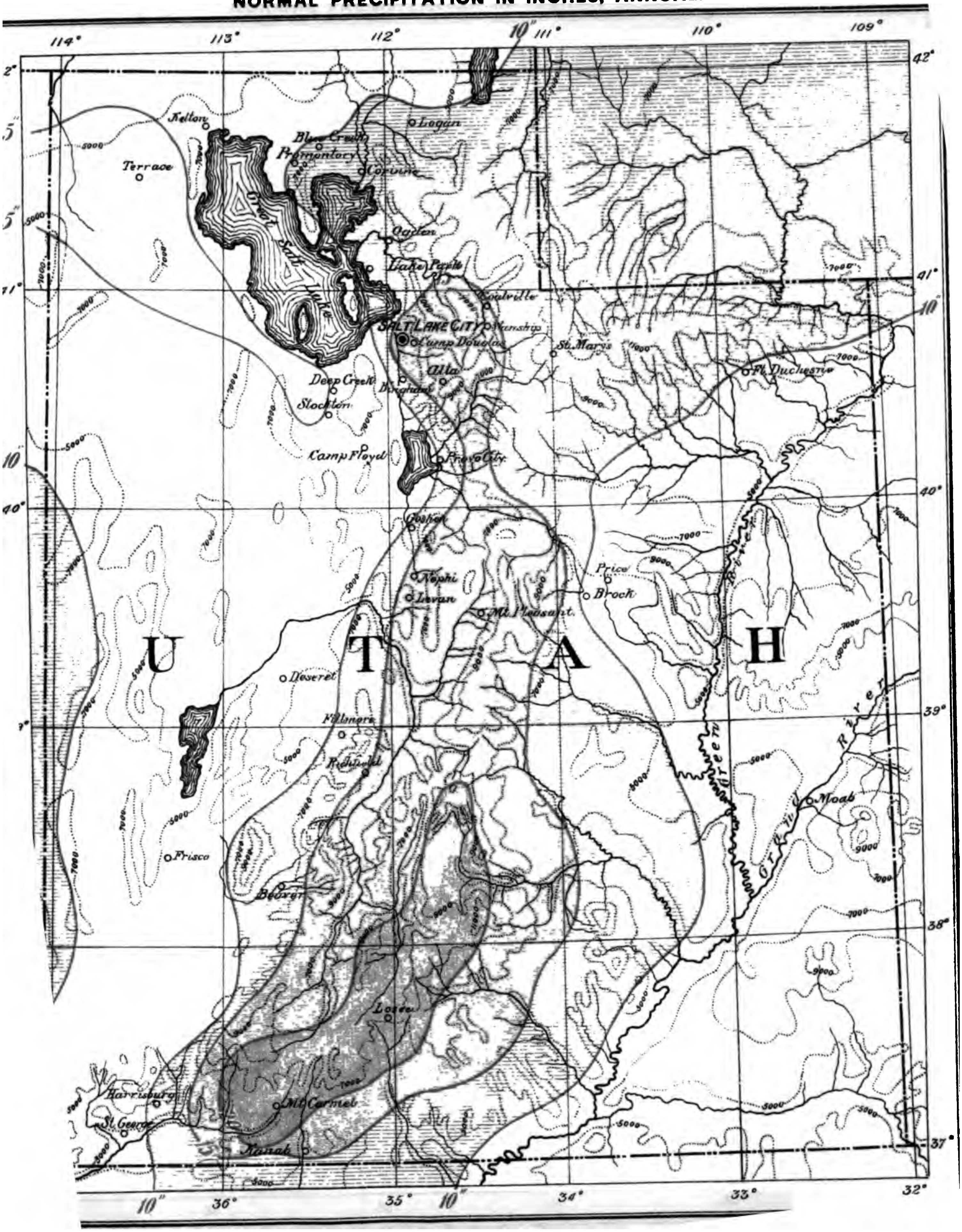
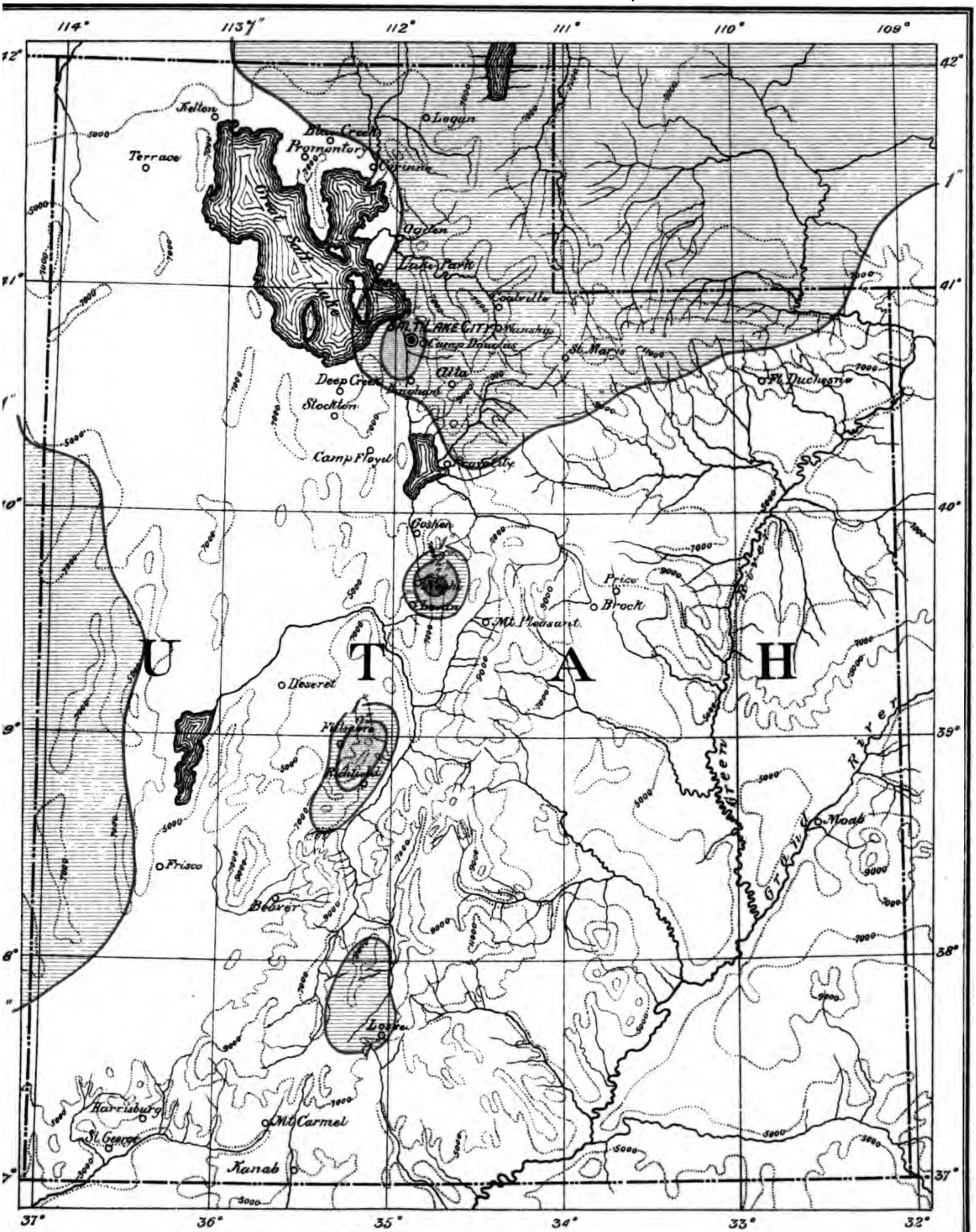


NORMAL PRECIPITATION IN INCHES, ANNUAL.

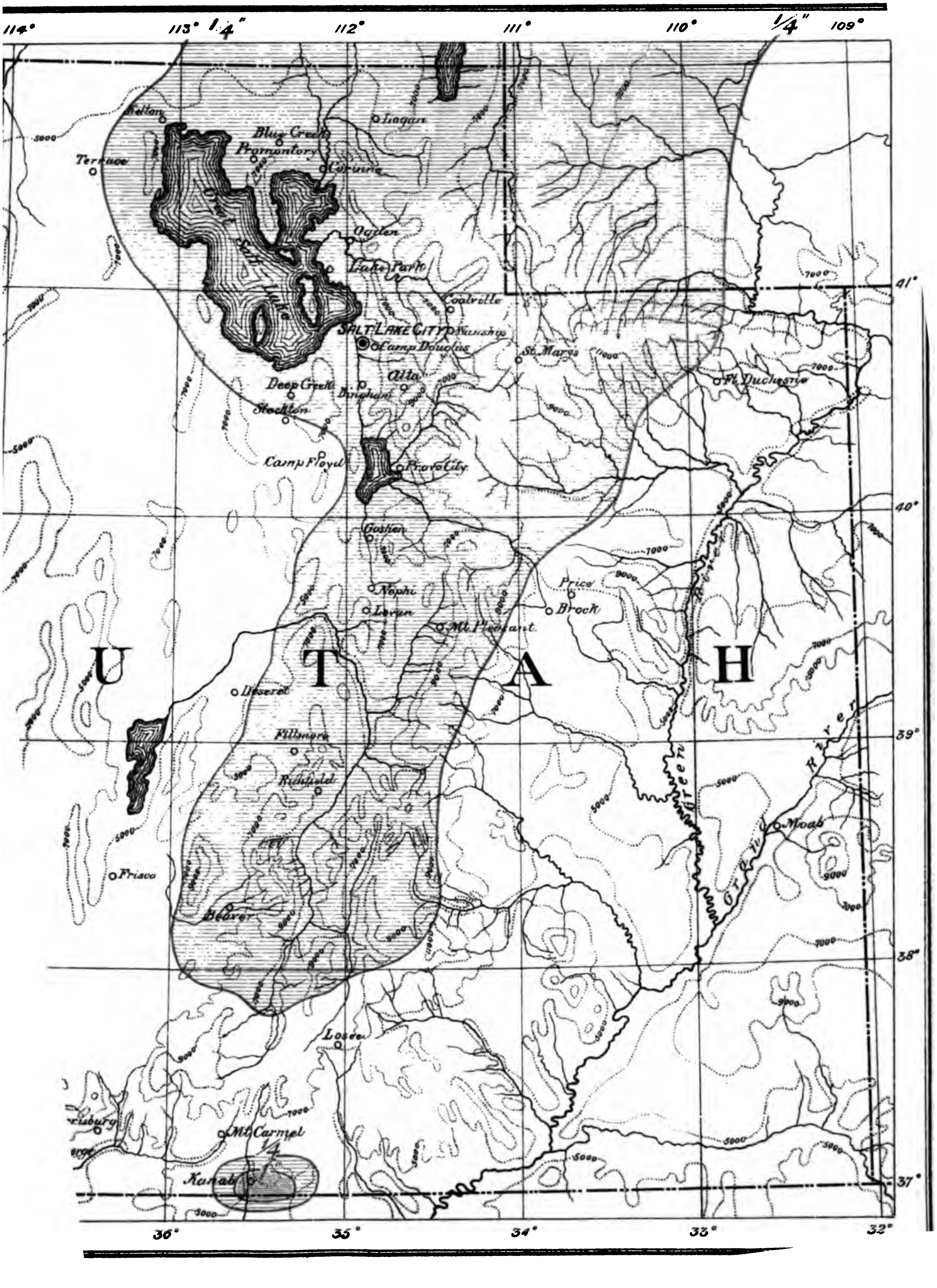


NORMAL PRECIPITATION IN INCHES, APRIL.

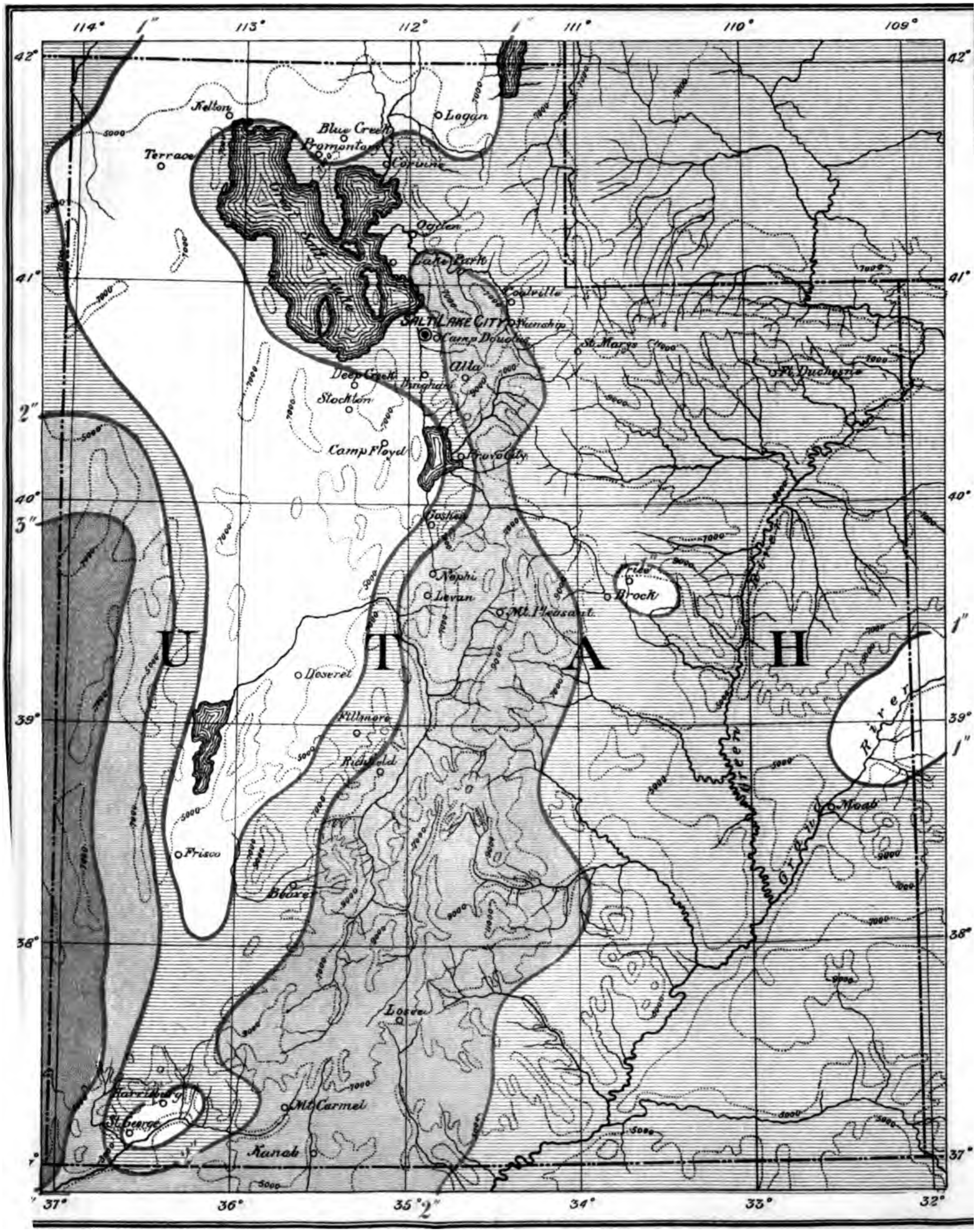


APPENDIX No. 60.

NORMAL PRECIPITATION IN INCHES, JUNE.



NORMAL PRECIPITATION IN INCHES, DECEMBER.



APPENDIX No. 60.

NORMAL PRECIPITATION IN INCHES, JUNE.